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Designing a service concept for the future Finnish grocery trade



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The purpose of this thesis was to develop a new service concept for the Finnish grocery trade with the aim to help customer focus on healthier food consumption. The service idea and concept that was developed is called 'Green key' and encompasses a set of food-related and technology-enhanced services that inspire people to discover healthy meals, accelerate grocery shopping and preparation on busy days, guide people with choosing the right products for a balanced nutrition and reward them with bonuses such as discounts, home delivery and customer voting for favourite and new products.

In the theoretical part I created a basic understanding of the terms service concept, service innovation and design and suggested service design tools to concretise the service concept. A discussion about value creation in future services built the grounds for the theory of transformative services on which the service concept has been developed.

The service concept was designed using a service design process including the phases of insights, ideation and concept. Customer insights have been collected using online survey and cultural probes. An expert interview, desk research and trends have been used to gather insights about the market. Service ideas have been generated using the ideation technique of opportunity brainstorm and customer value constellation. The service concept was concretised with a range of tools including Service World, Moodboard, Service Poster, Service Blueprint and Customer Journey.

The empirical study and theoretical discussion in this thesis have shown that supermarket customers long for new service offerings in the grocery trade sector and seek for inspiration, more variety and guidance in the preparation of healthy meals. The service concept developed in this thesis proposes a new opportunity to create value for customers and providers in the grocery trade sector and stresses the need for service innovation rather than product innovation. The Finnish food industry is currently driven by product innovations but this research shows that service innovation can be a key differentiator and driver for competitiveness in the future. Through the use of digital technologies and the power of the crowd in social media channels, customers can be engaged and motivated to prepare healthy meals.

Keywords: Service Concept, Service Design, Transformative Services, Grocery trade, Health

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1 Introduction

In recent years there has been an increased discussion around people's food consumption behaviour and the health consequences that come with it. Newspapers and blogs are filled with articles around increasing diabetes and coronary heart disease statistics in many countries in the world. Wrong food choices, too little exercise and lack of knowledge and education about nutrition are one side of the coin. Over the past decades the food we are eating has become more and more mass-produced and processed and the hectic lifestyle in big cities doesn't leave time for preparing fresh meals.

The other side of the coin is that the food industry is trying to maximize turn over and increase profit margins in a more and more competitive business landscape. Most supermarkets are organized around making people buy more. Many small stores usually feature a bigger variety of ready cooked meals than fresh ingredients.

But with the rising challenges of a rapidly transforming society, a world economy in crisis and an environment out of balance consumer behaviour is changing and with it businesses and their marketing strategies needs to change (Kotler et al., 2011). Consumers are beginning to demand more transparency about the origin of the food they buy and look out for organic and local products. The grocery trade sector cannot keep their eyes closed in front of such challenges if businesses are to survive.

In Finland, a country with a small population and a dependency on imported food products, processed and fast food is a common way for people to eat. The grocery trading services in Finland have not seen any major innovations in the past decades and the lack of competition for the almost monopolistic S and K Group trading companies does not create any demand for it. But in the future customers will probably buy products and services not only based on functional but also on emotional and spiritual fulfilment they can deliver (Kotler et al., 2011).

Against this backdrop the question arises whether grocery trade firms need to play an active role in helping people live a healthier life and protecting the environment by offering services that align with sustainability and nutrition principles. If yes, what kind of services can these firms offer and how can they deliver spiritual fulfilment to its customers? The following research will look for answers to these questions.

1.1 Research objective

There is a need to raise attention to the design and development of new services in the grocery trade sector, that provide access to a better choice of health promoting food while at the same time encouraging customers with the preparation of healthy meals and increasing their well-being through health related service offerings. This is especially true in the context of the Finnish population as geographical, cultural and economical aspects have impeded any major innovative changes in the grocery trade.

In 2010 Ostrom et al. (2010) identified ten research priorities for the science of service, one of which is *Improving Wellbeing through Transformative Service*. This research priority investigates the relationship between well-being and service and consists of seven subtopics (Ostrom et al., 2010). The two subtopics that are of relevance for this thesis are

- Improving consumer and societal welfare through service and
- Delivering service in a sustainable manner (i.e. one that preserves health, society and the environment)

Also Sangiorgi (2010) has identified an increased interest in Service Design investigating the transformative character of services on individuals or communities. Within the Science of Service a dedicated research group called Transformative service research (TSR) focuses on delivering change and improvement in the well-being of individuals and communities through examining the impact of service aspects such as the value of co-creation, service offering benefits, access to valued services, quality of service or service experience (Ostrom et al., 2010). The transformative aspect of services identified by TSR and Sangiorgi (2010) therefore represents a key theoretical framework for this thesis. According to Tracy Dagger (in Ostrom et al., 2010) businesses need to recognize well-being as an important end goal and service research therefore needs to investigate the impact of the customer's role in topics such as consumption and value creation, relationship development and social interaction. Both Sangiorgi (2010) and Ostrom et al. (2010) see the research need to investigate this topic in more detail and extent.

Against the backdrop of transformative services and the need for new services that focus on well-being this thesis investigates *what kind of service in the Finnish grocery trade can encourage people to choose and consume health promoting and sustainable food*. The thesis uses a Service Design approach as methodology to find answers to this question.

1.2 Structure of this report

This thesis consists of a theoretical and an empirical part. As shown in **Fehler! Verweisquelle konnte nicht gefunden werden.** there are three main topics that help build a theoretical framework for this research: Transformative services, Service concept and Designing for grocery the trade. These three topics are visualized as a circle at the corners of a triangle. The common approach and methodology used, which connects the three topics is service design and therefore the triangle in the centre. The triangle is also used to visualize the process of a developing a service concept. The triangle represents a funnel through which the design process moves from left to right, from a lot of insights and ideas to one concrete concept.

The theory of 'Transformative services' and 'Designing for the grocery trade' are positioned at vertical axis of the triangle as they both give input into the beginning of the Service Design process. The theory of Service Concept frames the outcome of this research and therefore is positioned at the rightmost corner of the triangle.

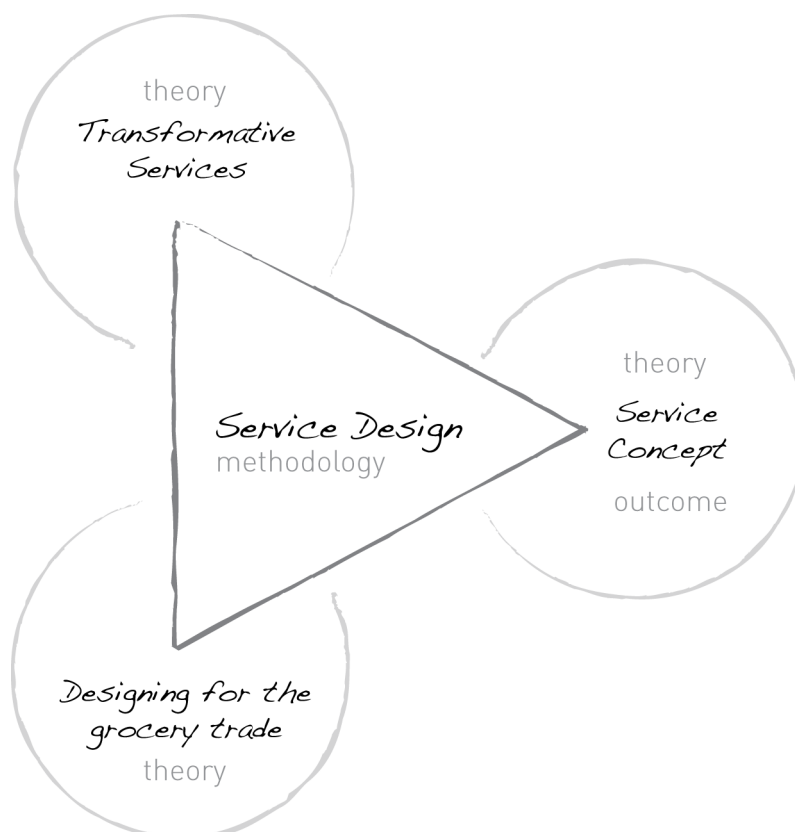


Figure 1: Structure of the thesis

1.3 Delimitations to this research

Designing a new service involves time, people and know-how. Services that deal with impacting on a whole community or service system require even more time and dedication.

In this thesis the Service Design process involves only the initial phases of insights, ideation and concept. Design and implementation have been excluded for scope reasons. The service concept is a white label concept without a case company. While Service Design should take into account business and organizational aspects in developing new services, this research tries to look at service innovation in the food industry in general and not at the business challenges of a specific company. Therefore business related aspects such as financial model, performance measurements and the like will only be touched briefly. However this thesis can serve as a starting point in the discussion with grocery businesses in Finland.

Co-creation is an essential activity to achieve transformative services. Due to geographic location of the researcher as well as scope and timing, a co-creation workshop could not be conducted as part of this research. However the qualitative customer data gathered has provided deep insights and a thorough understanding of customer needs and opportunities.

2 Designing a new service concept

There is no recipe for designing successful services. As the nature of services can vary from digital services used on a mobile phone to entertainment services in a hotel setting, approaches, processes and concepts vary just as much. Both for the communication of a concept to stakeholders or investors and for the actual design and implementation it is crucial to have a common understanding of what a service concept must consist of and why. The academic discussion around the notion of a service concept is diversified and the following paragraph intends to give an overview of the existing definitions.

2.1 What is a service concept?

The biggest challenge in designing a new service is the to make the intangibility of a service idea tangible to management, stakeholders, employees, suppliers, investors and of course to customers. Therefore all parties involved in service design need a shared understanding of the “service in mind” in order to be able to move from idea to design to implementation to delivery and ensure the service is meeting customer needs (Johnston & Clark, 2008).

In order to understand what a service concept is we need to clarify the role of a service concept in developing new service offerings and what elements a service concept consists of. The following paragraph will review existing literature concerned with the definition of the service concept and extract key themes that help shape a common understanding.

Service concept is often referred to as describing the customer benefits or value provided by the service (Goldstein et al., 2002, Fitzsimmons & Fitzsimmons, 2000). Johnston & Clark (2008) state that the service concept is in essence a basic specification for a service, which contains details about service elements such as the experience, outcome, customer requirements or marketing emphasis. Also Fitzsimmons & Fitzsimmons (2000) describe the service concept as containing service components such as value, form, function, experience and outcome.

Fitzsimmons & Fitzsimmons (2000) and Johnston & Clark (2008) both agree that the service concept has a double function: it is used as design tool to plan and develop a new service idea and it is also used as a communication construct within the organization to align marketing, strategy and customer needs. With this the service concept is considered a key driver in decision-making throughout the service development process (Goldstein et al., 2002).

According to Grönroos (2007) the service concept is the first step in developing a service package, which describes all the services needed to fulfil customer needs. The service concept is developed by first identifying the organization's intentions (Bouwman et al., 2008). Grönroos (2007) describes the service package as consisting of 1) the core service, 2) the facilitating services and 3) supporting services. The core service is the reason why the service exists on the market such as the provision of a supermarket. In order for the supermarket to run, additional services are needed to make the core service function. These additional services are called facilitating services and are a mandatory component of the service package. Thirdly supporting services are the services that are not needed to provide the core service but add additional value to the customer and may be the key differentiating characteristic of a service offering. It is therefore the supporting services that may need special attention in a market where competition is high and differentiation among competitors low. In Grönroos' (2007) Augmented Service Offering model the service concept works as an umbrella concept, which defines which core, facilitating and supporting services are used, how this service package is made accessible and how customers are supposed to participate in the process. The service concept can then be used as a guideline in the phase of planning and resource identification (Grönroos, 2007).

Marketing has used the concept of the 8Ps as a basis for the service concept. The 8Ps refer to the service characteristics product, process, place, physical evidence, people, productivity and quality, price and promotion (Goldstein et al., 2002). The 8Ps help as a systematic approach in the definition of the above mentioned components of a service offering. They however do not offer any guidance on the format, level of detail and usage internally and externally.

The service concept has also been referred to as being a prototype for a service describing what the customer is to experience and how it has to be delivered (Goldstein et al., 2002). In this sense, a service concept can be considered as the link between the “what a service is delivering” and the “how a service is delivered” to the customer (Goldstein et al., 2002). With this link the service concept intends to close the gap between the strategic intent of the company and the actual service (Goldstein et al., 2002) and enables to translate ideas into profitable services (Fitzsimmons & Fitzsimmons, 2000).

Also Bouwman et al. (2008) discuss the advantage of dividing a service into the ‘what’ and the ‘how’ as it enables the service developer to identify service elements and check them against customer requirements or needs. However they criticise that the service concept in form of a detailed description is a very limited methodology (Bouwman et al., 2008).

Zeithaml et al. (2008) argue that the definition of a service concept is a deliverable itself within the service development process, which needs to be agreed on at the beginning of a service development project. The service concept can be seen as shell or framework to describe the core benefit provided to the customers through intangible and tangible elements that make up the service experience and process. Hence the elements that compose the service concept can and need to be redefined and adjusted throughout the development process as new ideas and understandings about the new service arise.

Maffei et al. (2005) mention the service concept as being the general description of the offering and the elements, which communicate the service itself meaning the service brand, identity and mood. Service encounter and service evidences are seen as being separate properties of a service to be described.

Goldstein et al. (2002) highlights that topics like service recovery and profitability measurements have not been considered too well in the service concept. These are important aspects of services and propose questions for future research.

As the discussion shows, there is no unified definition of the term service concept. It is also noticeable that the service concept remains a rather abstract construct within the academic

discussion. However one can extract several key themes that re-appear in the discussion, which should help define a service concept as a working tool for Service Design projects.

Based on the review of the existing discussion of the service concept, it can be summarized that the service concept outlines a new service idea by describing the customer benefit or value, specifying the experience which the customer receives, highlighting strategic intentions of the organization, delivering information about brand, mood and marketing aspects and describing operational activities and tasks.

In the following an overview of Service Design as an approach to design new services will help to put the service concept into the context of new service development and describe how the tools used in Service design give shape to the service concept construct described above.

2.2 Innovation through Service design

Service design is an emerging discipline focussed on ideating, defining and implementing services using a customer centric approach (Mager, 2007). The goal Service design as a process is to innovate and improve new or existing services in order to make them more useful, desirable and usable to the customer while ensuring efficiency and effectiveness to the business (Moritz, 2005, Mager, 2009).

Moritz (2005) points out five key aspects of service design that differentiate the discipline from traditional service development. These five differentiators are:

- Service design truly represents the clients perspective
- Service design addresses the unique features of services
- Service design integrates expertise from different disciplines
- Service design is interactive
- Service design is ongoing

Service design as a multidisciplinary discipline lends and adopts methods and tools from other areas such as Marketing, Interaction and Experience Design, User Research and Business and Process Modelling (Patricio et al., 2011, Mager, 2007). These analytical and creative methods are used to shape customer experiences through explorative, generative and evaluative activities (Mager, 2007).

The holistic and interdisciplinary approach of Service design, which is characteristic for design processes, enables teams to develop services that take the functional, emotional, tangible and intangible aspects of services into account (Mager, 2007). Interdisciplinary refers to the involvement and participation of all kinds of stakeholders into the design approach,

such as staff, customers, suppliers, marketing and management; holistic means, that service design looks at the many perspectives of a service: the customer perspective, the employee perspective and the business perspective.

Within the discussion of how Service Design can add value to the development of new services, the question arises how Service Design can foster innovation in services. Maffei et al. (2005) point out that it is the principle of customer centricity in service design, which has facilitated design-driven innovation. Understanding customer needs and expectations and delivering experiences that answer these needs is therefore key to innovation in services.

Apart from its user centric approach, the design process itself brings about other aspects that have a positive impact on innovation such as expert collaboration, iterations within the steps of the process and a highly creative approach, which enables designers to tackle complex issues. (Burns et al., 2006)

Service businesses are confronted with an increase in customers, which become more and more capable of expressing their needs and demand more customized and integrated offerings. On the other hand service firms also face an increase in complexity as services become multichannel experiences and are integrated into bigger service systems and value networks (Patricio et al., 2011). With this prerequisite service innovation becomes more complex, too, and in the current highly competitive market landscape it is service innovation, which is believed to bring competitive advantage to firms (Bouwman et al., 2008).

According to Bouwman et al. (2008) service innovation is directly related to and dependent on innovations in business models. Service design therefore faces the need to develop methodologies that also take into account organisational aspects such as pricing and offering strategies, organisational models and processes (Maffei et al., 2008).

This need for convergence between economy and design can be met if the disciplines of Service design, Service research and New service development engage in a closer dialogue to bring about new tools and methods using the user centric design approach (Maffei et al., 2008, Patricio et al., 2011).

2.3 The service design process

Most processes in Service Design follow through a sequence of logical steps. The RED Design Council (RED, 2005) defines the service design process with the four D's: Discover, Define, Develop and Deliver. Stickdorn and Schneider (2011) name the steps Exploration, Creation,

Reflection and Implementation. Moritz (2005) divided the service design process into more detailed tasks and developed six categories of tasks: Understanding, Thinking, Generating, Filtering, Explaining and Realising. Though the naming and amount of steps might vary in literature and practice, the mindset used to design new services is the same (Stickdorn & Schneider, 2011).

Even though most design processes are outlined in a linear fashion it is important to recognize that a design process is iterative. This means on one hand that the designer might need to move back and forth between the phases in the process, refining and testing ideas and on the other hand move between designing in detail and designing holistically (Stickdorn & Schneider, 2011).

The double diamond model (Figure 2) developed by the RED design council in 2005 based on research in 11 leading design companies visualizes the process.

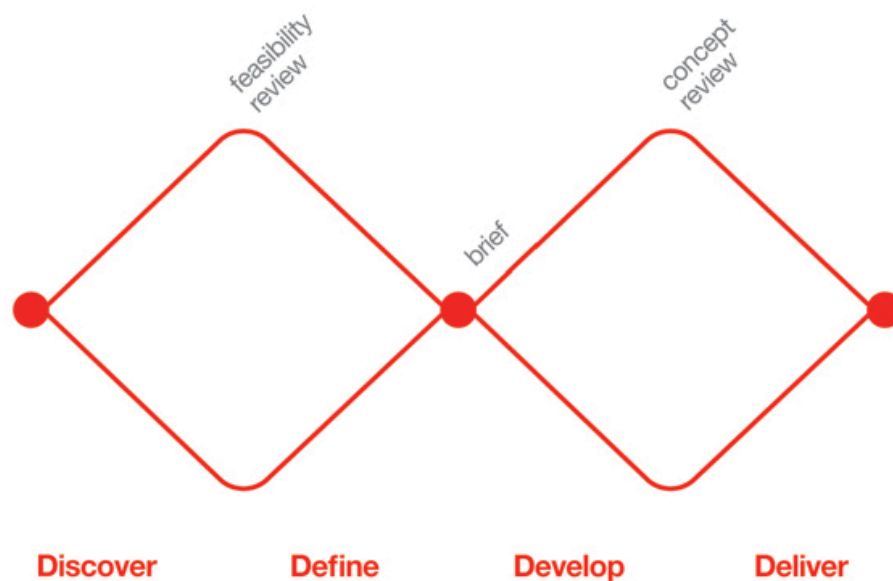


Figure 2: Design process by RED Design Council (2005)

While traditional service development often started with service strategy and concept development (Zeithaml et al., 2008), service design starts with gathering insights and understanding the context of the new service to be designed. In the Discover or Exploration phase the designer does not only gather insights of customers but also engages in understanding the business, the market, the culture and environment the service will operate in (Stickdorn & Schneider 2011, Moritz 2005). In this step unmet needs of customers can be uncovered. Based on the collected insights, the company's original brief or problem statement often needs to be refined or changed.

The next step Define or Creation is the phase of the concept design (Stickdorn & Schneider, 2011). Service ideas are generated through the translation of insights from the explorative phase into feasible service solutions. The ideas are evaluated and validated against business objectives (Stickdorn & Schneider, 2011, RED, 2005, Moritz, 2005).

In the step of Reflection or Develop the ideas are tested with customers, refined and iterated (Stickdorn & Schneider, 2011). Service concepts are translated into prototypes in order to test the service concept's function and feasibility, identify problems early on and make the service concept tangible to stakeholders or investors. Prototypes can be produced for example as paper prototypes, role-play activities or low-fi user interfaces. Polaine et al. (2013) distinguishes between inexpensive semi-structure discussion, a walkthrough participation, a more elaborate simulation and a full-scale pilot.

Finally Implementation or Deliver in the service design process is the step where the service concept will be implemented or realized. As the implementation most often involves a whole process of change within the organization it is crucial to involve employees as early as possible in the process (Stickdorn & Schneider, 2011).

2.4 Service design tools to design a service concept

As the discussion in chapter 2.1 has shown, the definition of what a service concept consists of remains abstract. Though elements like experience, customer benefits, form and function have been mentioned, the literature assessed for this thesis did not refer to any concrete tools to give shape to these elements and Bouwman et al. (2008) reminds us that a mere description of the service idea and benefits is not a satisfactory methodology.

Service design has adopted and created a variety of tools that help to give shape to service ideas and concepts. With its multidisciplinary background, service design disposes of methods that bridge the gap between business and design by adopting tools from management practices and enhancing them through visualizations and illustrations to make complex ideas more tangible.

Table 1 outlines various service design tools that can help concretise the service concept. The tools have been chosen for the purpose of this research.

Service concept element	Service design tool
Customer benefit or value	Service Poster, Service World
Service experience specification	Customer journey, Touchpoints
Strategic intentions of the organization	Opportunity definition Service Canvas
Brand, mood and marketing	Moodboard
Operational activities and tasks	Service Blueprint

Table 1: From Service concept to Service design tools

The tools will be described in detail in Chapter 5. Even though a variety of tools exist ready to be used, oftentimes tools and methods have to be adjusted or modified or created in order to fit the context of the project.

3 The future of services

In our fast changing society, we need to re-evaluate the meaning of value creation for customers and think of how businesses can deliver and gain value by providing services to them. What kinds of services are required to address the needs of future customers while providing a sustainable and solid business model? There is an increased discussion - both in the consumer as well as the business context - about the need to “transform organisations” and deliver “transformative services”. (Birkhölzer & Wendland, 2013)

Research has shown that success of a business can be increased if the service or product offers additional value to their customers and distinguishes itself from its competition (Wulfen, 2011). In the following I want to offer a basic understanding of value creation in the service economy and highlight ideas of value creation in future services.

3.1 Value creation in the service economy

In 2004, Vargo and Lusch published a new framework that was to lay the corner stone of modern marketing theory, the service-dominant logic. Vargo and Lusch (2004) point out six main differentiators that describe the economical shift from a product-dominant logic to a service-dominant logic. The product dominant logic represented a marketing view in which value was created through the exchange of goods. With the rise of the service economy this value creation has shifted from the exchange of goods to the exchange of knowledge and skills. The role of goods, the Firm-customer interaction, source of economic growth and the role of the customer himself have changed in the service economy, too. Most importantly the meaning of value has shifted from being determined by the producer to being determined by the customer on basis of “value in use”. This big shift in thinking how value is created means that firms can only make value propositions to the customer and it is the customer and other actors involved in a service interaction that co-produce the value together with the firm. (Vargo and Lusch, 2004). Customers are considered value creator during value generating processes and interactions while companies are facilitators and co-creators for value creation (Voima et al., 2010).

Helle (2010) defines value creation in the service business context as a process of becoming better off mutually through a process of resource integration. But how this process is to happen remains despite the lively academic discussion often vague (Helle, 2010). To better understand how value is created in a service context, Helle (2010) summarizes value creation as a joint performance gain through resource re-configuration, which is shared through a pricing mechanism. If this gain compensates for more the customer pays and more for the service provider’s costs, value has been created.

With regards to product based service businesses Vargo and Lusch (2004, 11) point out that “if a tangible good is part of the offering, it is embedded with knowledge that has value potential for the intended consumer, but it is not embedded with value (utility).” This emphasizes the notion that value is created in use and that the value is co-created between the customer and the provider. The process of value co-creation can be defined as a set of activities and tasks performed by the customer to achieve a certain goal (Payne et al., 2008). The more access a customer has to information, knowledge, skills and other operant resources, the more likely value is created for the customer (Payne et al., 2008).

Voima et al. (2010) presents a different viewpoint on value creation called the customer dominant logic (CDL). Essence to this logic is the assumption that value is not always created mutually and actively, but it is considered to be formed through the customer’s accumulated reality. This view also encompasses the notion of value not only being the result of resource

integration but as being socially interpreted and experienced in a phenomenological manner (Voima et al., 2010). In practice this means that value often is formed after a service interaction and outside the service business context such it is in the case of a holiday, where the customer feels the value of the holiday after her return. Customer Dominant Logic sees the customer in her context in life and not only in the context of the service interaction. Therefore Voima et al. (2010) suggest the concept of value-in-context rather than value-in-use. Another aspect at the core of CDL is the notion of the shift of customer needs from utility needs to deeper psychological needs (Voima et al., 2010). The impact this has on service businesses is that this requires a new way of thinking about the customer. The focus shifts away from what the customer consumes to how the customer is living his life. Looking at the customer's routines, activities and practices gives guidance to how the service process should be designed (Voima et al., 2010).

What does this mean for the grocery business? Both service dominant and customer dominant logic propose a shift in thinking for the traditional grocery business. Based on Vargo and Lusch's (2004) theory groceries do not carry any value in themselves but it carries a value potential. The service that is providing the groceries to the customer therefore can unlock this potential through value creating interactions and activities. Voima et al. (2010) go a step further and argue that the customer is the centre of value creation and that value is created through services that provide the customer with fulfilment of their deeper psychological needs. For the grocery business this means to shift away from providing the customer with groceries with the purpose of eating to providing services involving groceries that enable customers to live a satisfied and balanced life.

As Michel et al. (2008) point out, businesses today need to realize that customers seek for satisfaction rather than for products and therefore products are only vehicles for service. The focus on service as the value creating shell for delivering products to customers offers countless opportunities for the grocery trade, which will be looked at in more detail the empirical part of this report.

3.2 Creating value with transformative services

Already in 1999 Pine and Gilmore (1999) predicted the advent of an economy of transformations as the next phase in the economic evolution. They talk about the evolution of western economies since the industrialisation from commodities to goods to services to experiences. The experience economy is what they called the current paradigm of service offerings, where companies create value to their customers by staging experiences to them (Pine and Gilmore, 1999). However value creation in future services may be achieved by offering live changing experiences to customers or what they call transformations.

In a more recent discourse Sangiorgi (2010, 30) sees the trend that “services are no longer conceived of as an end in themselves, but are increasingly considered as an engine for wider societal transformations.” Also Kotler et al. (2010) talks about the need to deliver transformations in order to stay competitive. In a post-growth market, where competition is tough and service firms face the need to differentiate in order to survive, transformations are key to future service offerings as they will have a stronger impact on the lives of customers (Kotler et al., 2010).

Transformative services in the private sector can be defined as services that change the way individuals or groups behave in order to foster well-being and satisfaction of the individual or group while providing sustainable business value (Birkhölzer & Wendland, 2013). This notion of transformative services shares similarities with the notion of both the service and customer dominant logic described earlier. The co-creation of value is at the heart of the service interaction and the service is not focused on only answering needs of consumption but looks at the customer’s life and its overarching needs.

Delivering transformations through services means integrating this approach at the business model level of the company. According to Nenonen and Storbacka (2009) a business model as an externally oriented construct is a conceptualization of how value is co-created and can help managers to address and answer the right questions. Kotler et al. (2010) sees transformations as the result of collaborative approach with and the empowerment of their customers through which service firms can lower their costs and achieve higher impact.

Especially in the grocery trade sector, differentiation is usually low and most often only based on geographic location in different neighbourhoods (Kotler et al., 2010). In the United States companies such as Wegmans and Whole Foods are promoting a healthy lifestyle through their service offerings and therefore impacting consumers well-being and health on community level. These transformative service offerings that help change customers’ behaviour succeed in differentiating themselves from the competition and gain higher margins and profits (Kotler et al., 2010).

The concept and impact of transformative services is gaining more attention especially in the area of well-being. Ostrom et al. (2010) identified 10 research priorities for the science of service, one of which is named “Improving well-being through transformative service.” Transformative Service Research (TSR) is a focus of the Service Research discipline looking at services that focus on “creating uplifting changes and improvements in the well-being of both the individual and the communities.” (Ostrom et al., 2010) With this focus TSR is interested in

understanding environmental and social consequences of service offerings as well as their impact services on well-being.

Kotler et al. (2010) has elaborated a 3-step model that outlines how companies can deliver transformations to their customers. A first step for service firms is to identify the socio-cultural challenge they want to tackle. For the grocery trade this could mean providing services that enable a better nutrition, reduce health issues such as stress or diabetes. The second step according to Kotler et al. (2010) is to select the target constituents such as women, elderly, youngsters. The third step is to offer the transformational solution by helping customers move up the Maslow pyramid (see Figure 3). This means offering service solutions that enable people to self-actualize themselves.

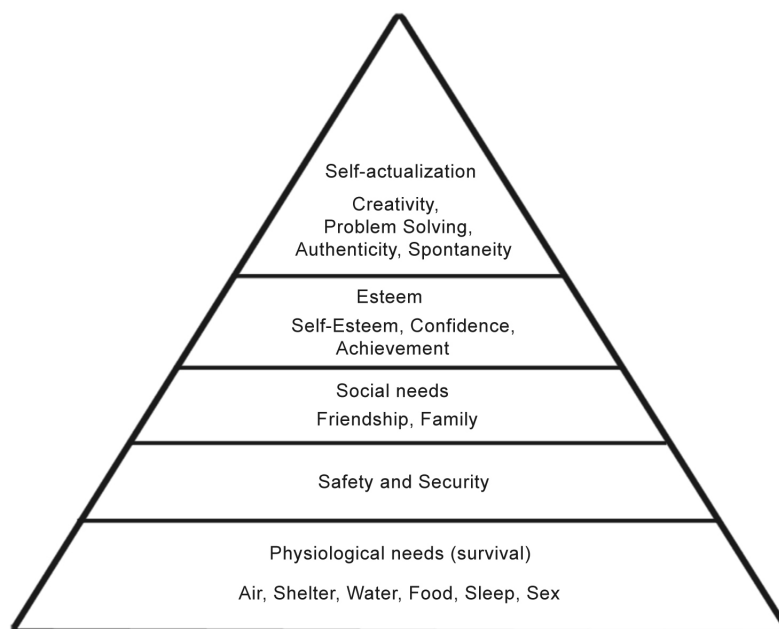


Figure 3: Maslow pyramid by communicationtheory.org

The model of Kotler et al. (2010) however remains on a high level and does not suggest any concrete tools or methods for the actual design of transformative services. TEKES, the Finnish Funding Agency for Technology and Innovation sees service innovation as a key enabler for transformative changes in health and wellbeing among others (Ezell et al., 2007).

However both the academic and business focussed discussion around transformative services up to date is limited (Ostrom et al., 2010). Transformative services are mentioned in

connection to public sector or community service design but according to my assessment of the literature for this thesis, little discussion exists about the context of the private sector.

According to Sangiorgi (2010) service design as a discipline is starting to deal with the development of services that have a transformative impact on society. Services of the future are not considered anymore as design object but rather as a means to foster a more creative and collaborative society and economy (Sangiorgi, 2010).

Sangiorgi (2010) proposes a first approach to transformative service design by applying theories of organizational change to the context of service design on a community level. As seen in Figure 4 Sangiorgi (2010) highlights that in order for transformational change to happen services need to change at the level of service paradigms.

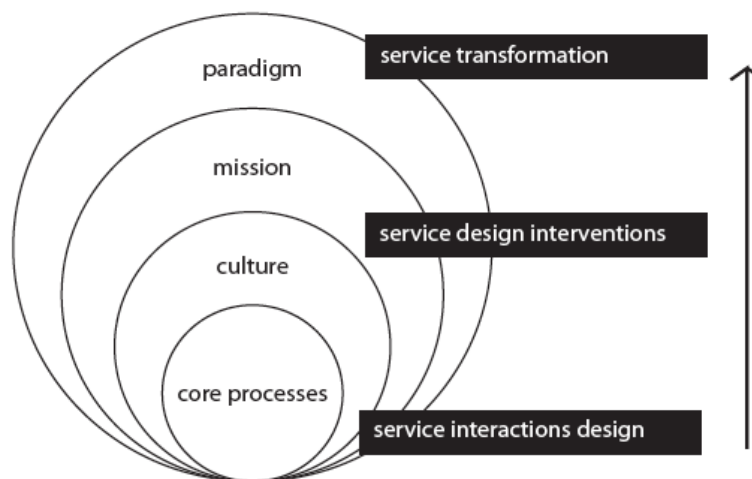


Figure 4: Levels of change within service design practice (Sangiorgi 2010)

Service interactions design impacts the core processes of services such as how money can be retrieved from a bank account. Service design interventions work at the level of culture and service transformations have the force to impact at the level of paradigms, helping to redefine worldviews or beliefs. This process of change however works on both sides, the organisational side and the customer side (Sangiorgi, 2010), meaning that in order to deliver transformation change to customers, this change has to happen also within the processes, culture and paradigms of the organization.

Sangiorgi (2010) then proposes a model for transformative practices and principles (Figure 5), which takes as a main condition the idea of seeing citizens as active agents of change and the

notion of value creation instead of value delivery. The next important principle for transformation is the intervention at community scale, which enables large-scale changes through social dynamics. Interventions at community scale requires organisations to step up and to collaborate with other organisations beyond their own limitations and borders.

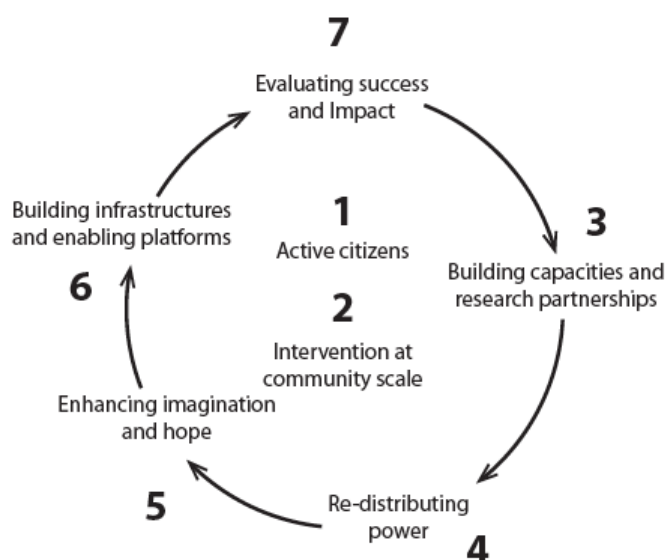


Figure 5: The transformational principles as proposed by Sangiorgi (2010)

The five remaining principles as shown in Figure 5 are placed in a circle to show their iterative character. Building capacities and research partnerships, re-distributing power, enhancing imagination and hope, building infrastructure and enabling platforms and finally evaluation success and impact make up the circle that Sangiorgi (2010) proposes for transformative services.

Even though Sangiorgi (2010) talks about public service design and transformations, similar principles can be applied to the business context. Instead of active citizens in the public sector context, active customers can be the key principle in the business sector. While public sector's goal is to achieve change among a very large scale within community, transformative services in the private sector do not need to target groups of big scale. Transformative services in the business context can be catered to a small group of customers as well.

As this discussion has shown there is a notion about the transformative character of services in the academe (Sangiorgi, 2010, Ostrom et al., 2010) as well in the business context (Kotler et al., 2010, Pine and Gilmore, 1999) and first ideas about the process and principles required have emerged. There seems to be however little concrete guidance about the design for transformative services. The following chapter proposes eight ingredients as a first step towards filling this gap.

3.3 Eight ingredients for transformative services

As the discussion above has pointed transformative services are a relatively new topic within the Service Design practice. The academic discussion focused mostly on public service design and transformations (Sangiorgi, 2010) and the business discussion remains high level. However the need for differentiation and competitiveness in the business sector is an active threat for many service firms and Kotler et al. (2010) is convinced that delivering transformations are a key in surviving in the future.

Against this backdrop, Nancy Birkhölzer and myself have developed eight ingredients as key levers to enable transformative change in services (Table 2). These eight ingredients were extracted through the analysis of a big variety of private sector services and start-ups that have had a transformative impact on their customers. By transformative impact I mean the way the service has achieved to help their customers self-actualize themselves through the service interaction. The notion of what a digital bank service is and does for the customer is one example, and a service that helps disabled people to move around the city better another.

The eight ingredients below are developed to help service designers infuse transformative character into their service concepts, making them more relevant to customers and deepening the impact the service can have. The ingredients translate some of Sangiorgi's (2010) transformative principles into more actionable and tangible design instructions that can be easily applied to any service design project. The ingredients can be used as instructions, guideline and inspiration but also as a tool for evaluation for service ideas.

Ingredient	Description
Connect to a community	Services in order to be transformative in character should have social relevance. This means that they are deeply integrated into a social community and empower this community to achieve their goals. A transformative service should therefore connect to an existing community to use its social dynamics to drive change.
Allow people to wear many hats	In a time of prosumerism and the shift from owning to using, it becomes increasingly important to help people find what they are looking for. Identifying people's needs and wants and matching the right individuals together will be a successful means to create services with transformational character. This ingredient suggests that the service has to offer the customer the possibility to be for example seller and buyer, consumer and producer of value.

Form new habits	Switching of the alarm while sleeping is an example of how automated and integrated certain behavioural patterns can become in our life. If services can help people to establish and maintain new behaviours, new habits are formed and transformation happens. When designing transformative services we need to identify what kind of habits exists or need to be created in order to improve the person's wellbeing.
Establish Platforms	As Sangiorgi (2010) states, no one expects a single company to solve a social challenge stand-alone. Rather than offering the solution from start to finish, it is more valuable to establish a platform where individuals and businesses can collaborate. This does not require the establishment of new platforms, it can also mean the service steps into an existing platform.
Empower the individual	People want to feel empowered to take their lives into their hands. The more transparent and semantic information is delivered through a service, the more the customer will feel empowered to take valuable decisions that have an impact on her personal life, society or environment (Kotler, 2010). Information transparency and communication are key to empowering the customer to take action and be responsible.
Embed services seamlessly	Through the synergy of digital and physical services new interaction paradigms emerge. Interactions with digital systems become more embedded into our real world and vice versa physical and more natural interactions start to become more relevant and empowering to people also in digital contexts. Smart services can offer contextual help with as little interaction as possible. The less visible the interaction, the more powerful for the user.
Enable responsible actions	Sustainability is the capacity to endure. Sustainability has been recognized by many as the most important aspect to focus on (Halttunen et al., 2009). But sustainable services do not only mean dealing with environmental issues but also take into account economic and social wellbeing. The more a service can enable a customer to take responsible actions, the bigger the impact on society, economy or environment will be.
Foster co-creation	Last but not least fostering co-creation in services will empower individuals to move up the Maslow pyramid and help fulfil their needs of self-actualization. Empowering individuals to co-create experiences and be part of shaping the service offering they will

	enjoy, will make the service more relevant and targeted to its audience (Kotler et al., 2010).
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Table 2: Eight ingredients of transformative services (Birkhölzer & Wendland, 2013)

The eight ingredients described above are just a first step in exploring a conceptual framework for the design of transformative services. The ingredients are not a set of instruction but rather a recipe that needs to be adjusted and adopted for each context it is used in. New variations will emerge and new ingredients might need to be added over time.

4 Designing for the grocery trade

Designing for a specific industry or sector requires from the designer to understand the context and the challenges of that sector for the development of new services. One way of gaining a basic understanding of the driving forces that operate in a specific industry is to look at existing research within the industry with regards to consumer behaviour and trends. The following chapters will therefore outline existing research and trends in the grocery trade.

4.1 Consumer behaviour in grocery retail context

Designing for the grocery trade is a complex task. The activity of grocery shopping alone contains many different aspects to consider. Shopping decisions are made partly at home, partly in the shop. Shop customers buy in fact 19.8 items when they originally planned to buy 10.5 (Marquardt & Burkink, 2002).

The biggest challenge in the grocery trade lies in understanding consumer behaviour, as consumers vary with their expectations and attitudes as in no other industry. Traditional methods of segmenting customers according to age or gender do not apply anymore and aspects like attitude and values are seen to give a more accurate picture of consumer behaviour. (Tekes, 2004)

According to Marquardt and Burkink (2002) consumers face a complex environment in trying to shop for healthy food for several reasons:

- Customer's shopping behaviour is influenced by merchandising
- Customers make poorer decisions due to overwhelming information in the store

- Consumers infer product attributes, which may not be correct due to halo effect, which describes the effect of the brand impression overall to all products of the brand.
- Customers do not read or understand labelling of product correctly

Marquardt and Burking (2002) argue that it is the industry's and health care professionals' responsibility to make sense out of the variety of available foods and that „winners in natural foods will be the ones that help consumers solve their food purchasing problems.”

One of the biggest inhibitor in promoting a healthier lifestyle to consumers is the higher price of biologically produced foods (Hansmann et al., 2005). Halttunen et al. (2009) confirm this with their study on consumer trends in the Baltic region, where aspects of health ranked third after price and taste. There is however evidence that attitudinal loyalty and customer commitment can increase customer's price tolerance (Hansmann et al., 2005).

4.2 Mechanisms for behavioural change among consumers

Changing the way people behave is one of the most difficult tasks humans face as human systems attempt to maintain equilibrium in order to survive in a constantly changing environment (Schein, 2010). Investigating behavioural change is routed in behavioural psychology and cognitive science and understanding the principles behind the cognitive processes and motivations in grocery shopping and meal preparation would exceed the scope of this research. There are however a few aspects that are helpful to understand when designing services that involve processes of change.

Schein (2010, 301) notes, that “transformative change implies that the person or group that is the target of change must unlearn something as well as learn something new”. According to Schein (2010) unlearning something is more difficult than learning something new as routines and habits have become so deeply embedded in one's life that they are hard to get rid off.

In the realm of food, research suggests, that there are a several ways of educating consumers on healthy food and foster behavioural change (Hansmann et al. 2005, Gittelsohn et al., 2010). Hansmann et al. (2005) researched the impact of simulation and gaming on environmental behaviour and awareness. There is evidence that role-plays and interactive board games have a positive impact on the knowledge of nutrition (Hansmann et al., 2005). Hansmann et al. (2005) defined five game features with psychological relevance in order to create an impact of behaviour, knowledge and attitudes about the environmental issues. The player is asked to take the role of a trendsetter and take responsibility for the overall system

and its development. Feedback with explanations is given to the player to enhance the learning and photographic illustrations support emotional aspects to the player. Finally an interactive representation of the development and state of the system is offered to the player. Hansmann et al. (2005) suggest that these features can be used in any simulation as a teaching tool. A challenge for role-plays and interactive gaming is the component of time in long-term service planning. Developing games within the context of everyday services requires constant effort. To make customers be excited about a game and keeping up the interest over a longer period of time might be a difficult and cost intensive challenge for a service business.

There is also evidence that interventions within the stores impact people's behaviour positively (Gittelsohn et al., 2010). According to Gittelsohn et al. (2010) intervention trials have shown a substantial increase of knowledge on and purchase of healthy food. The interventions executed by Gittelsohn et al. (2010) were based on five phases, which included a healthy breakfast, healthy cooking at home, healthy snacks, carry out purchasing and healthy beverages. During the interventions in store material was used to promote the foods for each phase through shelf-labelling, posters, coupons ("buy 3 get 1 free"). Educational sessions and product give aways were conducted several times a month. (Gittelsohn et al., 2010)

Tanner et al. (2004) investigated the conditions of consumer behaviour for sustainable practices with regards to food purchases and found out that there are internal and external factors that can block "green" behaviour. External factors such as the lack of access to organic products or recycling options in close proximity will impact the consumer's behaviour on the level of action. Internal factors influence the consumer on the level of knowledge and motivation to act. (Tanner et al., 2004) Furthermore Tanner et al. (2004) points out that there is a relationship between the difficulty of an expected behaviour and the likelihood of the behaviour being executed. This means if organic food is not available in shops for sale, consumers will not make an additional effort to purchase organic food elsewhere. Surprisingly Tanner's et al. (2004) study reveals that socio-economic factors such as household income were neither a constraint nor a support of environmentally friendly behaviour. Instead store type and living circumstances turned out to be very important external or situation factor in regards to ecological consumption behaviour. This led Tanner et al. (2004) to the conclusion that store features and availability of products are crucial influencers of ecological consumer behaviour. Tanner et al. (2004) suggest that not only pricing incentives but also eco-labelling and unpackaged products foster behavioural change.

Sobal and Wansink (2007) discuss the health impact of foodscapes on consumer's eating behaviour. With foodscapes Sobal and Wansink (2007) mean macroscale built environments

that can be supermarkets, restaurants or other food purchase facilities. Similar as Tanner et al. (2004) discuss the impact of grocery stores on green behaviour, Sobal and Wansink (2007) suggest that food landscapes facilitate or constrain dietary patterns and nutrient intake. Also Wells et al. (2007) talk about the impact of environmental factors on consumption behaviours. In the term environment the authors include also technology, food packaging and presentation, neighbourhoods and urban design (Wells et al., 2007). According to Wells et al. (2007) there are correlations between health and small scale and big scale environments. Neighbourhood and store location as well as the shelf size available for healthy products in stores can be correlated to dietary practices and health (Wells et al., 2007).

4.3 Trends in grocery trade and consumer behaviour

In their study *Consumer Food Trends in the Baltic Area* Halttunen et al. (2009) point out important changes in the food shopping and preparation behaviours of consumers as well as trends on the food production and supplier side.

The four main trends identified are:

1. Local food and global retailing: Consumers value and prefer local food and consider it healthier than food originating from other countries. On the other hand global retailing is key for the food stores to differentiate and answer consumers' need for variety and self-fulfilment.
2. Product identity versus product image: Consumers understanding of nutritional information is often compromised by the image a brand conveys to the consumer. Consumers may see a product as healthy even if it is not. Labels such as fair trade, or organically produced are trusted more than brands, but the complexity of labelling leads to confusion and misunderstandings.
3. The two consumption societies: Halttunen et al. (2009) see the consumption patterns in the Baltic society split into two sides. For one side price is the king and will determine especially during times of financial crisis the food consumption behaviour. The other side are consumers that are willing to pay more for the sake of self-expression, service and social consumption.
4. Peripheral vision and thinking: This trend relates to the food industry and their lack of understanding the future and its challenges. Halttunen et al. (2009) call for a more collaborative approach between the food industry and peripheral partners such as clean tech providers to jointly create concepts that deal with the challenges such as environmental issues.

Tikka (2012) at Wevolve agency identified trends in Food in his presentation *New visions for food*. Tikka (2012) proposes six macro trends that will have an impact on the way food is produced, processed, delivered, bought, prepared and eaten. Climate change, Urbanization, Turbulent Economy, Depleting Resources and Polarization are trends similar to the ones identified by Hilttunen et al. (2009). The sixth trend that will have an impact on the food system according to Tikka (2012) will be the Social Web as its digital tools provide innovative means for social collaboration, co-creation and participation. Also Desai et al. (2012) from McKinsey&Company see Social Media Marketing and Location-based Services as key for grocery retailers to reach and engage customers. The use of Twitter for product discount votes or new product ideas has shown huge success for Walmart.

Desai et al. (2012) outline seven trends for the retail of the grocery trade, which they call the era of Retail 4.0, where technology plays a major role in the delivery of retail services. The authors point out the need for grocery retailers to focus on customer experience to stay competitive in the market. Digital technologies such as mobile phone apps that can be used for social shopping or offering of coupons have changed the way retailers can promote to their customers offering more engaging experiences (Desai et al., 2012). Also the digital wallet and self-check out technologies enable better customer experiences and cost savings for the grocery retailers. Desai et al. (2012) see also an opportunity for grocery retailers to become more relevant to customers outside the physical store blurring the line between on and offline. These may include ongoing subscription models or offering superior customer experience through offering drive thru stores or pick up boxes. Digital dashboards used in stores can offer customers with increased product information or help staff to manage stock control. Finally dynamic pricing is considered a trend that will not be neglected by the grocery retailers helping them to better control supply and demand by matching online and offline prices and offering time limited flash-sales (Desai et al., 2012)

The trends outline above show that shift is underway both on the consumer as well as the provider side. Consumer needs are changing and shifting towards more transparency, environmental awareness and a focus on organic products. Digital technology is changing the ways customers interact with services and offers opportunities for business to reach and engage a bigger variety of customers while finding new ways to cut cost and become more relevant in the life of the customer.

5 Service design process for this thesis

Based on the character of the service design challenge, the research data, resources and timeframe available, I designed a custom service design process with the aim to create a service design concept for the grocery trade that focuses on helping customers live a healthier life.

Since there is no one right way of using service design tools in a specific order for each service design project, methods and tools have to be adjusted, improved or modified throughout the iterative design process (Stickdorn & Schneider, 2011). In order to create a service concept using a service design process I have identified the following three main steps:

INSIGHTS: Collecting insights from customers, market and trends

IDEATION: Ideating service ideas based on the insights, combining and evaluating them

CONCEPT: Developing a service concept based on the ideas and insights

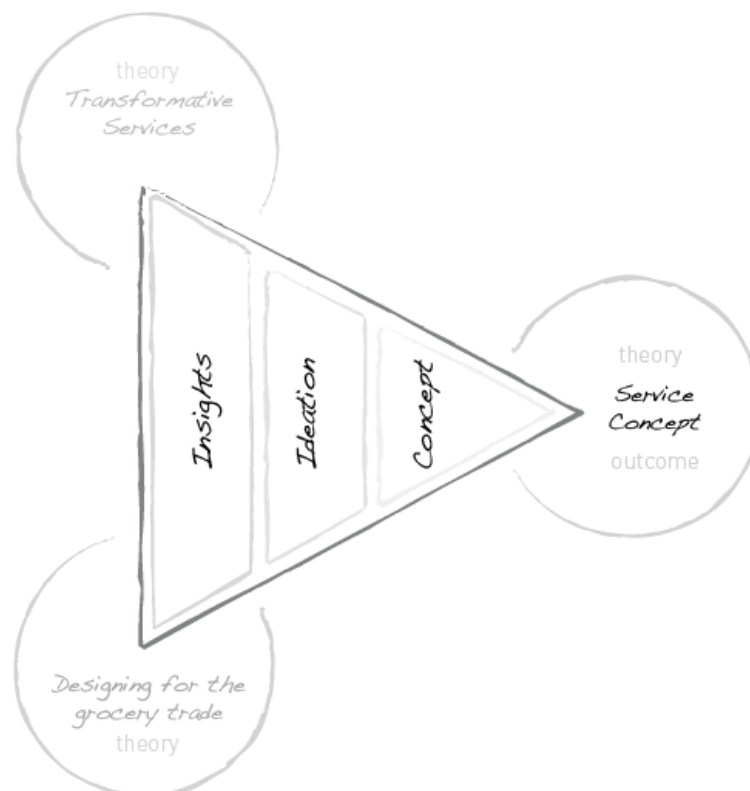


Figure 6: Service design process for this thesis

Figure 6 shows the triangle visualizing the service design process. The narrowing of the triangle stands for the concretization from a variety of insights and ideas into a concrete and tangible service concept.

5.1 Insights

According to Polaine et al. (2013) insights generated through qualitative research help designers to understand the chaos and emotions characteristic for human behaviour. The service design process therefore starts with collecting a variety of insights from different sources and using different methods. This ensures the insights collected provide a holistic understanding of customer needs and motivations, business requirements and constraints, market opportunities and risks. This understanding forms the basis of tackling any design problem (Polaine et al., 2013).

5.1.1 Online survey

The online survey is a cheap, quick and easy method to collect both quantitative and qualitative data to help understand demographic characteristics, attitudes and behaviours of people doing grocery shopping. Internet technologies and online communities make it easy for researchers to reach a big variety of segments of society through online survey research (Wright, 2005). It is however important to be aware that accessibility of the Internet may have an impact on the type of people that can be reached (Andres, 2012).

According to Andres (2012) a good survey approaches the problem from many angles, asks dependent questions, explores reasons why and seeks relevant background material and personal data by applying both qualitative and quantitative techniques (Wright, 2005). According to Wright (2005) an advantage of using online communities in research is that researchers gain easy access to people who share specific interests, attitudes, beliefs, and values regarding an issue, problem, or activity.

In designing an online survey it is of crucial importance to carefully design the right questions and use the right words. Andres (2012) talks about the risk to get false or no information if wrong wording is used. Survey questions can be closed or open ended. In closed dichotomous questions the respondent can choose from two answers, e.g. yes or no. Open-ended questions let the respondent answer to a question in her own words and often help uncover issues that the researcher was not aware of. Also rating scales, ordered response questions, ranking scales or filling in blanks can be used among an abundance of question types. The questions asked should be easy to understand and not be of ambiguous meaning. Loaded questions that

carry the opinion of the researcher should not be part of legitimate survey research. (Andres, 2012)

According to Mattelmäki (2006) survey research belongs to the traditional methods used in human centred design and focuses on giving statistical proof for issues already known. A critique of surveys is that through mass responses generated market insights are not sufficient to design new service solutions, as they do not reveal individual needs of consumers (Mattelmäki, 2006). Also Polaine et al. (2013) criticizes that statistics are not actionable for designers as they do not reveal the “why” behind the issues investigated. Despite Mattelmäki’s (2006) and Polaine’s et al. (2013) critique I consider survey a valuable method for service design if not used as the only tool. In my experience as a service designer the combination of a variety of methods including traditional, adapted and innovative methods yield fruitful and actionable insights. In addition to that qualitative information can be extracted from surveys using content analysis, themes and patterns even though these tend to be used more in innovative methods as categorized by Hanington (2003).

One reason for using an online survey for the purpose of this report was as stated by Wright (2005) and Andres (2012) ease, speed and low cost of this method. According to NewMedia Trend Watch (2013) 88.6% of the Finnish population are online which allows this method to reach a big variety of people. As it is difficult to obtain email addresses from a big variety of people, I chose the social media network Facebook as a distribution channel. According to the online service SocialBakers (2013) there are over two million active Facebook users in Finland, which represents a penetration of 48.8% of the online population.

Another ground for choosing an online survey was to see whether a majority of respondents like to see changes in the way supermarkets function. While cultural probes or diary studies reveal valuable insights on motivations, needs and emotions of users or customers, the online survey can reveal statistical truths about people’s behaviour and preferences (Andres, 2012).

The online survey was conducted during November 2012. I posted the survey to 40 contacts in my personal social network on Facebook, from where it was shared by another 40 people. Using this approach I was able to reach a variety of people of different age, interests and patterns regarding food consumption. The survey was created using forms at Google Drive, which allowed to collect and analyse the data easily.

The survey should help to understand whether there are there any patterns in how people shop food and prepare meals in Finland to uncover opportunities for new service ideas. Furthermore I wanted to understand the value food has for Finnish people and the importance of local and organic food. When improving an existing service the focus of insights collected

should lay on pinpointing failure points to spot possibilities for enhancement (Polaine et al., 2013).

The survey contained four parts: (1) Demographic information, (2) Grocery shopping, (3) Meal preparation and (4) The future of grocery shopping. In the first section I asked respondents about their age, gender, city of residence, food preference, size of household and number of children. The demographic information should help to understand the different segments of grocery shoppers that the service would cater to. In the section about grocery shopping I asked questions that should reveal how often people go to shop groceries, whether price matters in the choice of local or organic food, which supermarkets are preferred and what are the most common goods bought every time. The most important two questions were open-ended questions that asked about pleasant and unpleasant experiences of grocery shopping. These questions should help to reveal insights about the motivations and emotions of people doing grocery shopping, which would feed into the ideation phase for the service concept. In the section about meal preparation I asked the respondents about their frequency of preparing meals, the time used for cooking, sources of inspirations for meals and difficulties in daily routines regarding meal preparation. Here I wanted to understand the challenges people face during their busy schedules with regards to food preparations but also see the gap between these challenges and the aspirations people have. Finally in the section on the future of grocery trade I asked respondents to envision a perfect supermarket experience and what would be the perfect meal. With this question I wanted to engage the respondents in the co-creation of the service idea by submitting their ideal picture of grocery shopping and enjoying a meal. By asking questions about grocery shopping and meal preparation I wanted to gain insights on whether there are opportunities for services that lie at the intersection of these two activities.

The quantitative questions were analysed through the results function of the form service used for the online survey. The results were displayed in bar or pie charts as seen below (Figure 7)



Figure 7: Pie chart analysis of quantitative data

The qualitative questions were analysed using sticky notes. I printed out the answers on paper, highlighted key themes in the text using content analysis and wrote the themes on sticky notes. For each mention of the theme in the text I added a sticky note to the theme. The key themes represent the insights generated from the survey. The amount of sticky notes a key theme has gives information about the relevance of the theme for the respondent (see Figure 8).



Figure 8: Extracting key themes for grocery shopping - Pleasant/Unpleasant

5.1.2 Cultural Probes

Probes or diary studies, as they are sometimes called, belong to the group of innovative methods used in human centred design, which keeps evolving new ways of understanding human phenomena to uncover design opportunities (Mattelmäki, 2006). A probe is a way to attain insights about people's lives through the recording of their activities and therefore requires active user participation and self-documentation. The researcher is not present during diary studies. As described by Bolger et al. (2003, 580) diary studies are "self-report instruments used repeatedly to examine ongoing experiences, offer the opportunity to investigate social, psychological, and physiological processes, within everyday situations" while recognizing "the importance of the contexts in which these processes unfold."

Diary studies provide longitudinal data as they span over a certain period of time as compared to contextual inquiries or focus groups. Diary studies are vastly used in

psychology over long periods of time but are nowadays a common way to attain insights in customer research and service design also within shorter contexts.

According to Bolger et al. (2003, 580) “a fundamental benefit of diary methods is that they permit the examination of reported events and experiences in their natural, spontaneous context, providing information complementary to that obtainable by more traditional designs”. Probes therefore are a valuable addition to using survey research. Mattelmäki (2006) points out four key reasons for using probes as a method: Inspiration, Information, Participation and Dialogue. Even though survey research creates useful information for the designer, inspiration, participation and dialogue with the participants can enrich the design work and involve users more actively in the co-creation of a new service.

In terms of types of diary studies, one can distinguish between two main types: time based and event based diary studies. There are also a few disadvantages that one should be aware of. Depending on the complexity of the diary and tasks at hand, participants will need thorough training and instructions to be able to follow the required protocol. (Bolger et al., 2003) This means tasks need to be designed carefully and if possible tested beforehand. Another disadvantage is the commitment and dedication needed by the participant. As diary studies may be very time intensive and require regular execution of certain tasks, it might be difficult to find the right amount and type of participants.

Participants can be asked to probe feelings, experience and activities by using a diaries booklet in either paper or electronic form. Also photography can be used to record situations or objects important to the study. In the process of creating the probe kit it is important to consider how the data is collected and analysed and how much time a recording will take for the user. (Mattelmäki, 2006)

According to Mattelmäki (2006) as little as one participant is enough to uncover a need that inspires a new design. The adequate size for conducting a probe study is 5-10 people as the process of creating, conducting and analysing the material is time consuming (Mattelmäki, 2006). Criteria such as age, sex, family size and lifestyle should be carefully considered when choosing the participants for the study (Mattelmäki, 2006).

The grounds for choosing this method to gather insights for the design was the need to get a picture of people's reality in regards to meal preparation at home. As participants in surveys usually state aspirational situations, the probes give a snapshot of real life. I wanted to understand what kind of meals people prepare, how much time they use for preparing it and how they feel after eating. With this approach I intended to understand whether there is a correlation between the quality of the meal, the time spent and the emotions connected to

eating. The probe kit therefore should consist of a diary, where participants can fill in the details about each meal consumed.

The diary kit prepared for this research consisted of an introduction letter with instructions of how to use the kit, a single-use camera, so that participants could photograph their meals, 7 diary sheets to record the daily meals, a household profile template, a grocery shopping receipt sheet and a privacy disclaimer (Figure 9).

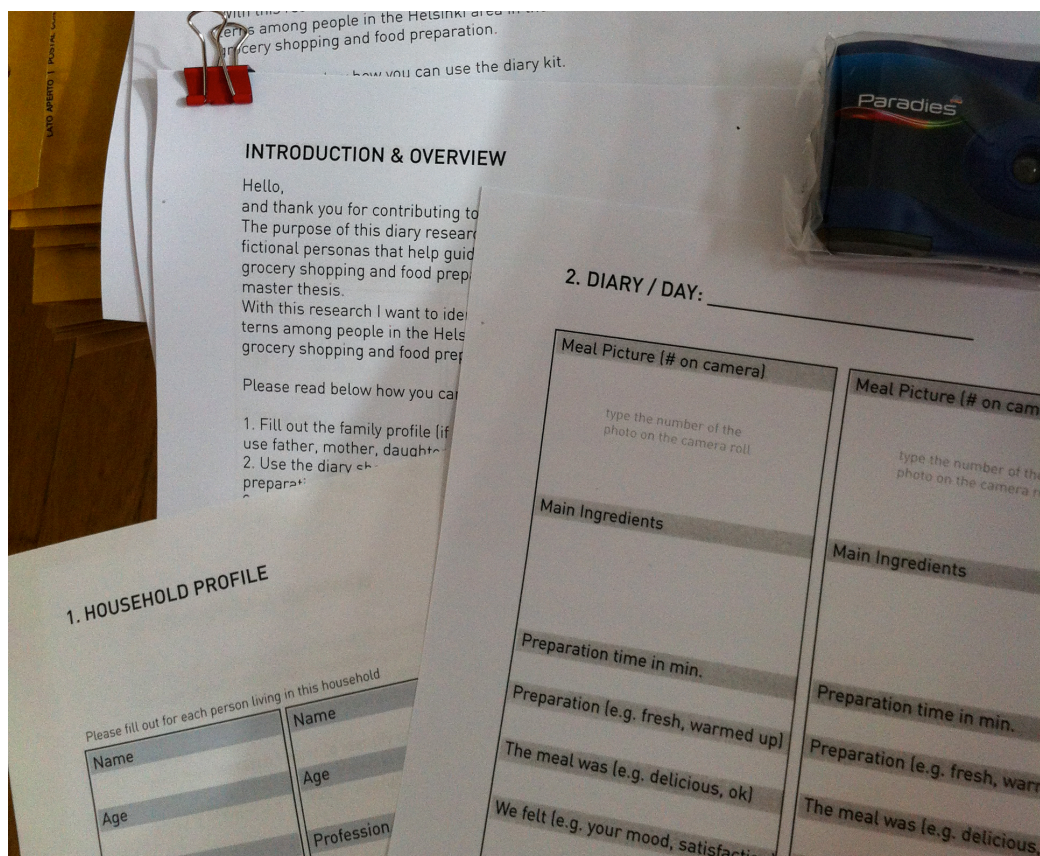


Figure 9: Diary Kit

For the recruitment of the participants I sent an email to many of my contacts asking for volunteers to take part in the survey. I chose personal contacts from which I knew they fit into the profile ideal for the design of the new service concept. This meant a participant should live in Helsinki, be employed and go to work or study on a daily basis. Additionally I wanted to collect probes from participants with and without children to see whether there is a difference in the type of food consumed. I received responses from five people who all live in different life circumstances but with the criteria stated above. The respondents were all aged between 27 and 37. Two volunteers live in a household with one child, one in a household with two children, one in a household with a partner and one in a single household. The diary kits were sent by post and I suggested a time frame of four weeks to send the kit back to me.

In the time period defined I did not receive any kit back and I had to send several reminders. The participants were very eager to participate but could not find the time. In one case, the diary sheets were destroyed by the child of the family and I resent the sheets. I extended the time frame two more times and finally received three diary kits back.

The filled out sheets were used as inspiration for the ideation phase but also revealed some concrete information of people's eating behaviour and preferences.

5.1.3 Desk research

In order to collect insights that give clues about the challenges in the market of the grocery trade as well as challenges for particular businesses, I conducted a desk research. I reviewed the websites of the biggest supermarkets in Finland, read newspaper and blog articles to get an overview what the current situation in the Finnish market is and what the media writes about grocery trade related topics.

The desk research helps to get an overview of existing services and spot opinions on political or economic issues regarding the food and grocery trade. A small benchmark by reviewing also websites of services from other countries helps to get an overview of the feasibility and implementation of new service concepts in the grocery trade.

The websites I visited were

Finnish grocery stores	http://www.smarkethokelanto.fi/ http://www.k-market.com/
Loyalty programs	https://www.plussa.com/ https://www.s-kanava.fi/web/s/ajankohtaista
Newspapers	http://www.hs.fi/ruoka/ http://www.iltasanomat.fi/
Associations	http://www.slowfoodhelsinki.com/
Foreign services	http://www.kochhaus.de/ http://www.kochzauber.de/ http://tastybox.de/home/

Table 3: Websites visited for desk research

By reviewing the different websites I extracted themes, ideas and thoughts through content analysis and combined them into market insights.

5.1.4 Trends

Service Design intends to create new and innovative services for the future. Leihener and Breuer (2013) however criticize that the user research methods applied in service design usually look at the past or present state. They argue furthermore that in order to create lasting value for social and economic change it is crucial to look for future drivers for that change (Leihener and Breuer, 2013).

Against this backdrop, trends can be a powerful tool for inspiring new service ideas. Trends can be divided into three categories: micro, maxi and mega trends. Micro trends are trends that appear in the market such as new TV formats or “liking” as a marketing tool on Facebook. Their life span is from 0-5 years. Mega trends are trends that go beyond the individual and reflect changes in society with a lifespan of 10 to 30 years. Maxi trends are those trends that reflect consumer needs and behaviour and usually span over 5 to years. (Wulfen, 2011)

According to Wulfen (2011) one way of using this categorization of trends for the development of new service ideas is to look out for mega trends (where is the world going?), convert them into maxi trends (what do people want in this world?) and finally into micro trends (what does this mean for my business?).

Leihener and Breuen (2013) propose a methodology that uses trends and insights from desk research as a starting point to create scenarios and opportunity fields, based on which service ideas are generated. Also Moritz (2005) includes Trend scouting as a tool for service designers in his work. According to the author trends need to be translated into insights for service design projects in order to inform the way a service offering can be specified (Moritz, 2005).

In our article “Designing transformative services” (Birkhölzer & Wendland, 2013), I highlight five maxi trends, which can be connected to the transformative character of services.

Reputation becomes a major factor in how individuals can influence groups and societies. Individuals are motivated by non-monetary rewards and go the extra mile to contribute time, skills and intellect for personal satisfaction and social goodwill (Birkhölzer & Wendland, 2013). This societal trend called Reputation Capital can have an impact on the way value is created in service delivery (Hall, 2012).

Crowdsourcing as a trend has been discovered already years back but is still a powerful source of innovation. As crowdsourcing encourages the participation of the individual, value is co-created within the group and between the group and the provider. Groups become increasingly open to gather physically or virtually to generate and implement ideas in a

bottom-up, ad hoc and hierarchy-free manner to solve complex, multi-dimensional problems (Howe, 2009).

Another trend that can be observed is changing idea of 'ownership', driven by new motivations like environmentalism, optimum resource use and conscious consumption along with increasing costs and new ways of collaboration (Birkhölzer & Wendland, 2013). As a result, the duration and nature of how people want to own things is shifting to be more flexible. This trend is manifested in services such as car-sharing or video rental services in the cloud.

Yet another trend observed is slow living. People are becoming more conscious of the role that time plays in shaping life quality. They are prioritizing experiences, connection with others, health, holistic well-being and creativity in place of speed and pace of life. Associations like Slow Food or Slow Movement are artefacts of this trend. (Birkhölzer & Wendland, 2013)

Prosumerism as the fifth trend is describing the blurring of the line between producers and consumers as people harness new ways to influence, design and produce the products and services that they consume, continuously during the product life cycle. (Birkhölzer & Wendland, 2013, Howe, 2009)

These five trends have been used as a source of inspiration in the ideation phase and as input for the opportunity brainstorm, which will be described in Chapter 5.2.

5.1.5 Expert interview

Expert interviews help to understand the essentials of a new environment in a very short time. While customer insights provide an understanding of a problem or challenge from within the context of research, the expert interview adds a professional outside perspective (Moritz, 2005). Interviews can be open in their structure and are helpful for uncovering opinions, latent information and idea inspiration (Polaine et al., 2013)

In order to understand the challenges of the Finnish population in terms of eating behaviour and consumption patterns related to health, I consulted Vera Mikkilä, Phd. and researcher at the University of Helsinki in the Department of Food and Environmental Sciences. The interview was conducted over the phone with a duration of approximately 20 minutes.

In the interview I asked Mikkilä about her research insights regarding health issues and eating behavior among the Finnish population. I was also interested in understanding how Mikkilä

sees the role of the supermarket as an agent in the healthy nutrition of its customers. Finally I wanted to know what challenges and opportunities Mikkilä sees for in the way supermarkets can support a healthy nutrition.

The interview was conducted using Skype software. I recorded the interview to be able to listen to it afterwards. After the interview I listened to the recording twice and made a transcript of Mikkilä's answers. I then underlined the key aspects of each answer and summarized them into the main insights.

5.2 Ideation

In the ideation phase I used several techniques to generate ideas, arrange and collect them in order to find ways of evaluating and combining ideas into the service concept.

5.2.1 Opportunity brainstorm

There are various techniques to generate ideas such as mindmapping, S.W.O.T. analysis or six thinking hats (Stickdorn & Schneider, 2011). These small exercises can be used either as individual tasks or in brainstorm sessions with two or more people to lead thinking in specific directions or foster imagination and new associations.

There is a lively discussion whether group sessions or individual work produces better results in creative output and how creative sessions are to be organized. Research suggests that the heterogeneity of a group can lead to more creative and better quality output than if a group is homogenous (Miura & Hida, 2004). However there is no evidence that group work results in higher creative performance than the individual work of individuals (Miura & Hida, 2004). Keith Sawyer, psychologist at Washington University, argues that group work even produces fewer ideas than individual work (Lehrer, 2012). The trend in modern creative agencies is and remains with group work. But research suggests that traditional brainstorm sessions where critique is not allowed is far less productive than group work where participants are allowed to debate and criticize freely (Lehrer, 2012). Another positive impact on creative performance can be achieved when the individuals of the group know each other but not too well and haven't been collaborating too many times but more than once. This has been identified by a research looking at the success of Broadway performances in relation to the performers social interconnection (Lehrer, 2012).

In my work at Fjord Service Design Consultancy we worked with an ideation technique that uses the insights generated in the Insights phase as creative input for new service opportunities. The insights (usually Business driver, Trend and Customer Insight) are placed at the corners of an opportunity space triangle and then ideas are generated with the insights as

input for creative thinking (Figure 10). For the purpose of this thesis Market insights have been used instead of Business drivers.

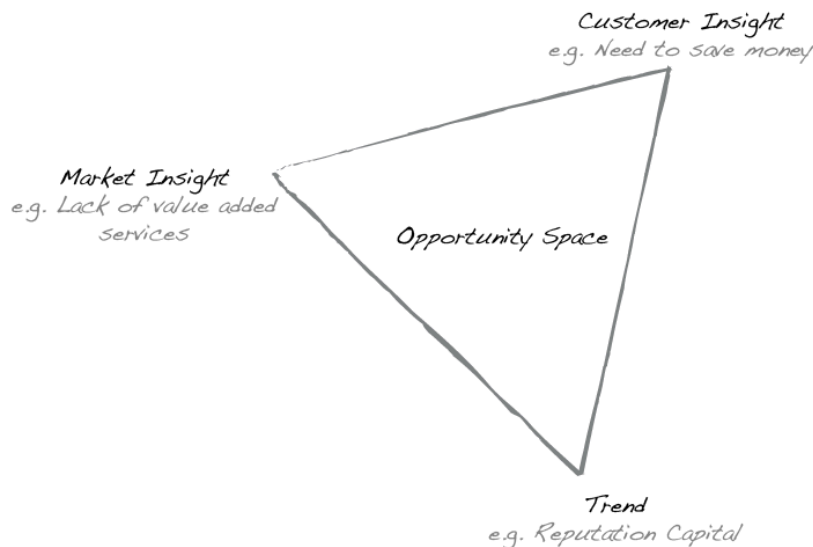


Figure 10: Opportunity Brainstorm triangle

Based on the academic discussion above I chosen to use a combination of individual ideation work and ideation together with a partner. I first came up with some initial ideas based on all the insights I had gathered from the interview, the survey and the articles I read. I noted these ideas on sticky notes on a big flip chart. Then I conducted the opportunity ideation with another person, a male Finnish friend of mine. Myself being female and interested in grocery shopping and food preparation as well as with a high motivation for a healthy nutrition, the male friend represented a valuable counterpart not very keen on groceries, food preparation and health issues, who sees these activities as a necessary must and searches for ways to optimize and minimize them. I outlined the already generated ideas to him and explained the insights available at hand. The friend evaluated some of the ideas with his knowledge, emotions and thoughts and together we created more ideas, modified some or combined them.

We used big flip chart paper to draw the insights as shown in Figure 10 and then used sticky notes to write down all ideas that came to mind and placed them inside the triangle. The time used for the ideation session was 30min. This combination of both individual and pair work, of evaluation and debate and with two people known to each other but with different values and ideas about the subject sparked a big pool of interesting ideas and thoughts.

Finally we evaluated the ideas against the business feasibility and current situation on the Finnish grocery market and discussed which ideas would be best to move forward with.

5.2.2 Customer value constellation

Another technique that has been used for this thesis is customer value constellation, which focuses less on the creation of many ideas and more on the relevance of an idea for the customer. Patricio et al. (2011) suggest the creation of a value constellation as a first step in the design of a service concept for complex service systems. The value constellation is a concept that was developed by Normann and Ramirez in 1993 to describe the whole value network of actors involved in a service offering (Patricio et al., 2011). Patricio et al. (2011) use the concept of value constellation and apply it to the customer perspective of a service offering to uncover opportunities for new service interactions between the customer and the firm. The so-called customer value constellation experience analyses all activities related to a service encounter including those which are not catered to by the service. Figure 11 below shows the value constellation experience for home grocery management as suggested by Patricio et al. (2011)



Figure 11: Value constellation experience for managing home groceries (Patricio et al., 2011)

According to Patricio et al. (2011) using the value constellation experience helps to get a holistic understanding of all activities involved in a service encounter. The authors use the example of buying house. While a bank caters only to the activity of taking the loan, service opportunities can be uncovered if the whole process of buying a house is being considered from a customer perspective.

Even though Patricio et al. (2011) suggest this method as a first step in the design of a service concept it cannot replace the creative ideation discussed before. Whereas the opportunity ideation creates an abundance of high-level ideas, the customer value constellation is already a more detailed and concrete construct to ideate. I therefore used this method after the opportunity brainstorm to organize and map the generated high-level ideas to the perspective of the customer.

In order to do a customer value constellation for the context of this thesis, I used my own experience in running a family household to decompose the steps for experience of grocery shopping. After having identified the steps for the constellation I placed the ideas generated in the ideation phase to the matching step in the constellation. Many of the ideas could be easily mapped to a certain phase within the value constellation. This mapping helped to combine the single ideas generated in the opportunity brainstorm into a bigger service concept that creates relevance for the customer throughout all steps of the value constellation.

5.3 Concept

In the concept phase the insights and ideas will be translated into a service concept that can be easily communicated to stakeholders and customers. Tools used in Service Design often focus on the visualization of the customer experience or benefits (Segelström, 2010). According to Segelström (2010) there is little academic research on visualization tools and most texts are short descriptions created by practitioners.

5.3.1 Service World

With the abundance of ideas mapped onto the customer value constellation a set of services emerged in the ideation phase. In order to communicate this set of services in a easy to understand manner, I defined a new deliverable that would be helpful in visualizing a service of bigger complexity, which I call the service world. The service world is a simple solution to visualize the service idea in an image containing relevant moments and touchpoints of the service in order to get a feeling for the service as a whole. This is especially helpful when the service consists of several sub-services or when the service is an entire system. The Service World can be considered as an evolution of the Service Image (ServiceDesignTools, 2013), which has the same purpose but with the difference that the Service Image gives a picture of a single service while the Service World refers to a set of services. According to Diana et al. (2009) the Service Image is helpful in communicating the main features of a service in a quick way for debate and discussion with stakeholders. The Service Image can be freeform and does not follow any specific guidelines.

5.3.2 Customer Journey

The customer journey as the name already suggests outlines the journey a customer experiences when interacting with a service and also before and after (Segelström, 2010). Sometimes this tool is very close to the concept of a storyboard or user journey. A storyboard is a comic-striplike visualization of a sequence of events that illustrate a service situation

(Stickdorn & Schneider, 2011). User journeys are used in digital design contexts to illustrate the steps a user takes when achieving a goal through the use of an online service. As a customer journey focuses on the way a customer experiences a service, it does not outline the details of how a service works (Segelström, 2010). Customer journey maps map the journey to the specific touchpoints a customer interacts with (Stickdorn & Schneider, 2011). According to Segelström (2010) the customer journey is a dynamic tool that can take many forms and adaptations based on the context it is used in.

For the design of new services this tool helps to imagine the service experience from the customer's perspective and make the intangible service encounters and moments tangible. Customer journeys focus on emotions, aspect of time or interactions between customer and service staff (Segelström, 2010). When using customer journeys or storyboards as design tools it is important to illustrate the situation as straightforward as possible in order to be able to communicate the key idea of a service moment to either potential customers or stakeholders for feedback (Stickdorn & Schneider, 2011).

I used customer journeys in this thesis to be able to tell short stories about how the service would be experienced by a customer to easily convey the benefits and magic moments the customer experiences. It was also a helpful tool to identify the touchpoints involved in certain service situations.

5.3.3 Service Canvas

As part of my work at as a Group Design Lead at Fjord's Service Design Academy, dealing with developing trainings to advance service design within the organization, we developed a tool to help define a service concept for service design projects that we call the Service Canvas (work in progress). The Service Canvas contains several aspects from the Business Model Canvas but incorporates more details on the actual service offering and the experience. The Business Model Canvas is a useful tool to design and describe business models (Stickdorn & Schneider, 2011) but as the name suggests focuses solely on that. The Service Canvas instead tries to work as a starting point for the service concept incorporating also aspects of the service experience and offer. Figure 12 below shows an initial draft of the Service Canvas tool.

SERVICE CANVAS		
FINANCIAL MODEL What are the most important costs inherent in our business model? Which key resources are most expensive? Which key activities are most expensive? For what and how do customers currently pay? How would they prefer to pay? How does each revenue stream contribute to overall revenues?	VALUE PROPOSITION For what value are customer willing to pay? What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? What bundles of products and services are we offering to each customer segment?	SERVICE OFFER What is the service offering?
<i>Opportunity</i>		<i>Service innovation strategy</i>
SERVICE EXPERIENCE How do you describe the service experience? Which attributes are most important?	SUPPLIERS/PARTNERS Who are our key partners? Who are our key suppliers? Which key resources are we acquiring from our key partners? Which key activities do our partners perform?	KEIs Which measurements define our business success?

Figure 12: Service Canvas draft by Fjord

The Service Canvas contains six input fields to describe key aspects of the service.

Additionally it contains two small input fields (in blue) that serve to spell out the opportunity for the business and the service innovation strategy.

The six fields are: Financial model, Value proposition, Service offer, Service experience, Suppliers and Key Experience Indicators. The field for Financial Model allows to think about how the company intends to attain financial success through the service concept and how customers are willing to pay for the service. The field for Value Proposition should be used to spell out the value that is created through the service between the company and the customer. The Service Offer field serves to think about the actual service and what is delivered to the customer in which form. The Service Experience field shall define what the experience for the customer will be like and outline the key emotions, feelings or benefits the customer should receive. The field for Suppliers and Partners is used as in the Business Model Canvas to think about which collaborations are necessary for the new service. The field for Key Experience Indicators is to define the measurements by which the firm will be able to measure the success of the service. Traditionally measurements have been defined as key performance indicators (KPIs), but in a customer centric view a good service performance does not guarantee a successful service if it doesn't target the right customers or needs. Key experience indicators measure the experience that is delivered and therefore relate directly to customers and their needs.

The field for Opportunity should spell out the gap or need the company is addressing with the service. The field for the Service Innovation Strategy draws input from the service innovation

For the purpose of this report the moodboard was used convey the aesthetic or atmosphere of the new brand and service. I used the moodboard in this thesis is to ideate and communicate the feeling the service should carry. I collected images from the Internet and combined them into a collage using the software Photoshop. Through google image search I searched for terms such as health, green, food, fresh, wellbeing, groceries.

5.3.5 Service Poster

The Service Poster is a tool to imagine how the service will be advertised to future customers (ServiceDesignTools, 2013). The Service Poster technique is based on the model of evidencing, which means the activity of creating images that explore the way a design will feel throughout its touchpoints (Diana et al., 2009).



Figure 14: Example for a service poster by themarlincompany.com

Figure 14 shows an example of a service poster. This marketing focused exercise helps the designer to think about how the customer can be attracted to the service and what her reactions will be. In creating a service poster the designer uses the aesthetic guidelines that apply to traditional graphic design to deliver a meaningful message. These guidelines include the use of colour, typography, size and positioning of text and graphical elements. When creating a poster it is recommended to stick to two principles: The poster should be self-explanatory and the representation should be visual and not focus on text only (Gray et al., 2011).

By thinking about how the customer would want to be attracted to a new service, I used the Poster technique to come up with a slogan, spell out the key benefits of the service and add the look and feel explored in the moodboard to it. The play with fonts, sizes and colours in the poster determines the importance of the service elements. The Service Poster can be used as the main image to communicate the service to others, as it has all the relevant information summarized and speaks the language of the customer.

5.3.6 Service Blueprint

The service blueprint is a well-known and well documented tool in Service Design to describe the flow of a service experience through a step by step interaction between the customer, the service staff and the backstage (Diana et al., 2009). Service blueprints therefore help in the definition of new processes within the service development. According to Bitner et al. (2008) services companies are most successful when they focus carefully on the design of the processes underlying a service experience. Service blueprinting is a process modelling technique that uses visualizations to represent actors and activities in a service process (Bitner et al., 2008). The advantage of such modelling lies in the easy communication of new service processes to stakeholders, employees or customers and in the possibility to identify failure points in existing services. The service blueprint contains five key ingredients: customer actions, onstage/visible contact employee actions, backstage/invisible contact employee actions, support processes and physical evidence (Bitner et al., 2008). On the horizontal axis the steps of the customer interactions with the service are outlined in the order of time. The vertical axis shows the depth of the interaction from visible to invisible. The line of interaction (Figure 15) shows where the customer interacts with the employee and where the employee interacts with support actions. Physical evidence describes the artefact or touchpoint through which the customer experiences the service. In the blueprint example in Figure 15 the blue colour highlights a digital touchpoint, the white colour a physical.

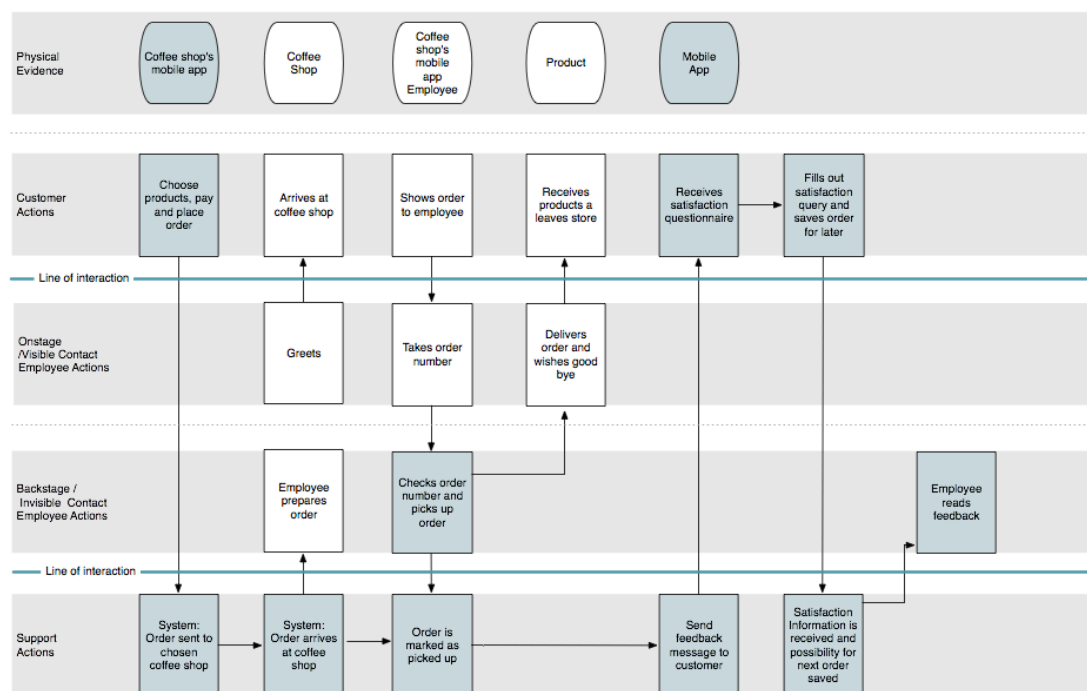


Figure 15: Service Blueprint for a coffee shop pre-order service

Polaine et al. (2013) showcases examples where the blueprint is used together with the customer journey. The customer journey is the first step in ideating the steps the customer would go through while during a service encounter. The service blueprint then helps to analyse the frontline staff, backstage and support mechanism interactions needed to achieve the customer journey. Stickdorn and Schneider (2011) suggest that blueprints should be done as collaborative exercises to create a shared awareness of responsibilities. As with many other service design tools there is no one way or unified language to do blueprints. Service blueprints change according to project and purpose (Polaine et al., 2013).

I used the Service Blueprint to understand what kind of new processes and possibly new staff the new services would require. The Service Blueprint was applied for one service situation. I first ideated the customer journey and applied then the service blueprint technique to the steps in the customer journey. While the customer journey is a tool that allows for interpretation and imagination, the service blueprint is already a detailed specification that can be used for service implementation and delivery.

6 A service concept for the Finnish grocery trade

6.1 Results Insights Phase

6.1.1 Online survey

The survey was conducted to deliver both qualitative and quantitative insights about the target customers for the new service. The survey was filled out by 80 respondents. The age of respondents ranged from 25 to 58, with most respondents in their 30ies. Respondents were mostly from the Helsinki Metropolitan region including Espoo and Vantaa. 70% of survey participants were female and 14% vegetarians or vegans. 55% of the respondents live with their partner or flatmate and 45% do have one or two children living with them.

Respondents go on average 2-4 time a week to the supermarket and their favourite supermarket is S-Market closely followed by K-Market and Prisma. 60% of respondents rather buy their groceries in the shop than ordering them online if such possibility would exist. People prefer to check the freshness and quality of the products and enjoy browsing around in the shop. Home delivery is assumed to be too costly. Respondents care very strongly about the origin of products and prefer local products over imported even though they would be organic. The most common products respondents buy each time they go the shop are: milk, bread, cucumber, tomatoes, juice and fruit.

In regards to meal preparation, most respondents prepare a fresh meal three to six times a week. Only 25% prepare a fresh meal every day. The average time spent preparing a meal is 42min. More than two third of respondents consider their way of eating healthy and balanced but in the cross check question 64% of respondents answered they would like to eat healthier food. Only 13% of respondents know what to cook every time and the biggest group of respondents would like to get more ideas and inspiration on what to cook. As source for recipes and ideas respondents mentioned the following in descending order of their mentioning: Internet & Food Blogs, Magazines & Books, Friends & Other people.

Based on the qualitative questions some general observations can be made. Respondents are in general dissatisfied with the limited choice of supermarkets in Finland and wish for more variety in food choice, especially fresh and organic ingredients. Many respondents refer to foreign supermarkets such as Wholefoods in the US, Tesco in the UK or Alnatura in Germany as inspiring places to shop for groceries. There seems to be a big gap between the customer's image of what a supermarket should offer and how and what the supermarket currently is offering to its customers.

Figure 16 below shows the content analysis for the pleasant and unpleasant aspects of grocery shopping. In order to divide the themes visually, different colours have been used.



Figure 16: Grocery shopping: Pleasant / Unpleasant

Table 4 below shows on the left side the summary of the most pleasant aspects about grocery shopping according to the respondents. Finding new products is considered most pleasant aspect about grocery shopping. Another aspect was getting ideas for meals and the inspiration customers get when walking through the store looking at products. The level and quality of service delivered through staff was another important aspect that has an impact on the joy of grocery shopping. Good quality and freshness of products was also mentioned many times as being a key factor in a pleasant grocery shopping experience. Finally the feeling of getting everything one wanted to buy defines a successful shopping.

Pleasant	Unpleasant
<ol style="list-style-type: none"> 1. Finding new products 2. Getting ideas for meals 3. Service 4. Good quality and freshness of products 5. Getting everything I want 	<ol style="list-style-type: none"> 1. Queues 2. Searching things 3. Other people 4. Prices 5. Rush

Table 4: Grocery shopping - Pleasant/Unpleasant

The right hand side of Table six shows the unpleasant aspects. Queues at the cash are the most mentioned inhibitors of a pleasant experience, followed by the time consuming activity of searching for products especially in a crowded shop. Even though respondents mentioned several times the importance of a few other people in the shop, too many people were considered as a very annoying aspect of grocery shopping. Prices are considered a barrier in making a shopping experience pleasant as well as being too rushed when needing to shop.

Figure 17 shows the content analysis for the perfect supermarket experience. Aspects about the quality of food are visualized with red sticky notes, aspects about the supermarket service with yellow and added value and inspiration with blue.



Figure 17: Perfect supermarket experience

The four key themes that could be extracted are: Choice of produce, customer service, atmosphere and added value (Table 5). With the regards to choice of produce, customers associate a perfect supermarket experience with fresh, organic and local produce. A big variety and new products are also considered an important aspect. Customer service is the second most mentioned aspect of a perfect supermarket experience with the focus on friendly staff that can give tips about meals and help in finding products. The atmosphere in the perfect supermarket experience for customers is calm with a few other people and the possibility to check out quickly with no queues. With regards to added value services, the perfect supermarket experience should offer recommendations and inspiration for meals. Additionally the product offer should be well structured and organized into themes. Customer wish products could be either browsed beforehand or ordered through an online offer.

Key theme perfect supermarket	Description
Choice of Produce	Fresh, new, organic, local and varied food choice
Customer service	Friendly staff that can give tips and are experts in the products they sell
Atmosphere	Few other people in the shop with no queues and a relaxed and calm atmosphere and quick check out
Added value	Recommendations and inspiration for meals to prepare in a well-organized shop using themes. Supported with the possibility to order or browse beforehand online.

Table 5: Key themes - Perfect supermarket experience

The content analysis of the difficulties in food preparation for respondents also shows reoccurring themes as Figure 18 shows below.



Figure 18: Difficulties in food preparation

The biggest challenge for people in the food preparation process is the lack of time. Finding variety in meals and a balanced nutrition was also considered a major difficulty for food preparation. Respondents living in single households reported about the challenge to cook for one person only, while families see the lack of peace and time for cook for the kids as a challenge in the food preparation process. During busy weekdays when people go to work hunger and tiredness and sometimes the lack of motivation to cook was also considered a barrier for cooking meals.

6.1.2 Cultural Probes

Out of the five cultural probe kits that were sent to participants, I received three back. In order to use the diaries for a tool of inspiration and insight, I spread out all sheets received on the table to get an overview over the variety of information collected. There are a few commonalities among the diaries, which are pointed out below.

Figure 19 shows a filled out sheet of one of the diaries. During the weekdays, participants eat easy and quick meals with an average preparation time of 30min. On weekend participants prepare more sophisticated meals with an average preparation time of 40min. Breakfasts are prepared and eaten fast. Often preparation time was specified with 1min. when eating porridge or cereals. The more the participant had put time into the meal preparation and the

fresher the food was prepared, the better the satisfaction level. The diaries of the single households showed more creative approach to the dinner preparation than the family household with two kids. Even though the preparation time of the meals were the same, it shows that the children possibly have a big impact of what is eaten in the family. The family household also used readymade meals to be warmed up whereas the single households prepared fresh meals. The emotions reported after eating show a clear connection between the quality of food the level of personal satisfaction. Participants reported more happy feelings when the meal was prepared fresh and tasted well. Even though this might not be any new knowledge, it confirms that a good meal impacts people's wellbeing in a positive direction. In some cases the mood reported by the family was best when the meal could be prepared quickly. This might be due to the fact that kids in the evenings are hungry and tired and the feeling of getting the whole family's meal ready in the right time and eating it together amounts for a lot of satisfaction.

Diary / day: Monday


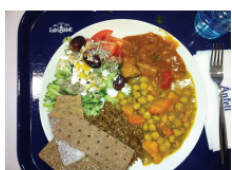

Meal Picture	Meal Picture	Meal Picture
		
Main Ingredients	Main Ingredients	Main Ingredients
Cereals, milk	Pork, chickpea, carrots, salad, tomatoes, cucumber, olives, seeds, black rice	Avocado, surimi, olives, paprika, tomatoes, mushroom, coriander, seeds Kiwis, pineapple, pomegranate
Preparation (in minutes)	Preparation (in minutes)	Preparation (in minutes)
2 minutes	No preparation, Aalto restaurant	20-30 minutes
Preparation (e.g. Fresh, warmed up)	Preparation (e.g. Fresh, warmed up)	Preparation (e.g. Fresh, warmed up)
Fresh	I believe fresh	Fresh, no cooking only cleaning and cutting
We felt (e.g. your mood, satisfaction)	We felt (e.g. your mood, satisfaction)	We felt (e.g. your mood, satisfaction)
Normal	Really good	Really really good

Figure 19: Example of a filled out diary sheet

The three cultural probes are too few to make generalizations but they offer a sneak peak into the lives of the customer and reveal emotions and little details that can sparkle inspiration during the design process. While in online surveys there is a risk that wishful thinking is applied in answering the questions, the cultural probe give a real snapshot out of the participants' lives.

6.1.3 Expert Interview

The interview with Verä Mikkilä reveals a few more interesting aspects to the customer insights. Vera Mikkilä is a researcher at the Division of Nutrition in the Department of Food and Environmental Sciences at the University of Helsinki. She has received her PhD from 'The Cardiovascular Risk in Young Finns'-Study, a longitudinal study determining the contribution of childhood lifestyle, biological and psychological measures to the cardiovascular diseases in adulthood. With this long term study background of the Finnish population and its behaviour in regards to nutrition and lifestyle, Vera Mikkilä represents a valuable person for gaining expert insights about the challenges of the Finnish population with regards to eating behaviour and opportunities with regards to grocery service offerings.

According to researcher Mikkilä, Finnish people eat too little vegetables. Eating more vegetables would reduce the amount of unhealthy food consumed. The reason for not eating enough vegetables has according to Mikkilä two reasons: The first reason is the lack of an eating culture that involves a variety of vegetables, as they have not been available to Finnish people before the times of globalization. The second reason is that good food is not very appreciated in Finland. According to Mikkilä people want to have food quickly and cheaply and they don't put time and effort into the food making as they are usually too busy.

In regards to how well Finnish people are educated in nutrition and healthy eating Mikilä answers: "In my research I have found a polarized situation. There are two very different groups in Finland: One where people are becoming more like southern European countries where eating is about socializing and quality, but there is this group of amazingly young people, adults, both men and women and they don't know any facts and they lack the knowledge of what is healthy and what is not. And actually there is a third group of people who believes anything they read in the media."

As has been identified already in the online survey, also Mikkilä sees the lack of competition in the grocery trade in Finland as critical. Accessibility of healthy food in supermarkets in Finland is according to Mikkilä not a challenge for a healthy nutrition but the fact that the two biggest supermarket chains have such a big influence which food is produced, sold and how it is displayed, advertised and promoted to the customer.

Mikkilä thinks that supermarkets should not jeopardize on their profit when providing grocery services to customers, however they could play a more active role in providing services that offer more information on healthy food choices to customer. Services like online shopping planners or better in-store information is already available in stores in the UK. Mikkilä is confident that there is a big enough customer group that would appreciate these kinds of services.

In regards to the supermarkets own product brands like Pirkka and Rainbow Mikkilä suggests that the grocery trading companies should think more carefully what products they feature among these brands. A special brand that features only healthy food would be easy for the customer to recognize quickly.

Mikkilä thinks that people, who do not have the time or lack the appreciation for food preparation, could be motivated to do so by offering them meal packages that are half way ready containing for example the raw ingredients measured and sliced ready to be cooked. The threshold to find joy in food preparation could be lowered.

6.1.4 Business Insights

In the desk research I analysed several sources of information regarding the grocery industry. I review the websites of the two big chains in Finland S-Group and Kesko as well as Kesko's own brand Pirkka, newspaper articles and a Blog called "Ruokapyramidhuijaus" (The swindle about the food pyramid).

I identified the following insights based on the pages reviewed:

Lack of differentiation between biggest supermarket chains	The big two supermarket chains of Kesko and S-Group do not differentiate themselves from each another in any big aspects related to services. Both groups have their own brands, in which a variety of products are available. The websites of both shops are product offer driven. Both supermarkets offer loyalty cards, but without additional services.
Highly controlled and monopolised market	The two big supermarket chains enjoy a very strong position in Finland and it is difficult for new businesses to enter the market and compete against such strong competitors.

Lack of value added services	Supermarkets in Finland offer very few added value services. There is a shopping list feature on K-market's website, but it isn't linked with any of the store's product offerings. Alepa offers home delivery but this is an expensive feature.
Focus on product innovation	The food industry focuses on product innovation, developing readily cooked ingredients or meals to answer customers' need of quick food for busy days.

Table 6: Business Insights

The insights pointed out in Table 6 show that the grocery market in Finland is very product-focused and has not looked at the opportunities of service innovations. The strong market position of the two big supermarket chains make it hard for new business to emerge and disrupt the market as it is happening in other countries.

6.2 Defining core insights and customer groups

After the insights have been collected from the various sources described above, they are summarized and synthesized into the core insights for designing the new service concept.

6.2.1 Core Insights

The key themes from the online survey revealed that the customer's image about the perfect supermarket is conflicting with the actual supermarket offering. Respondents showed a high interest in healthy, fresh and organic food but lack time and inspiration to prepare meals on a regular basis. The demographic statistics shows that this interest is not just inherent for example in a young and female target group, but also male and older segments do care about a healthy nutrition, food preparation and supermarket offerings.

Apart from generating insights for the ideation of the new service concept, the answers in the online survey also confirmed that there is an opportunity for a grocery service with the focus on healthy products and help with preparing meals.

Based on the diaries I concluded that time and timing is a crucial aspect for the design of a successful grocery service. Respondents reported, that the fact that they kept a diary helped them already to reflect on their eating behaviour and got inspired to cook more. Even though respondents had difficulties in finding time for filling out the diaries, this let me to the

conclusion that a similar activity of recording a meal or sharing a meal between people might be a motivator for people to take time to prepare food.

As a conclusion I synthesize the core user insights in regards to grocery shopping as follows:

- Need for ideas and inspiration for meals to cook
- Need for help and information regarding healthy products and ingredients
- Saving time
- Finding motivation to cook
- Saving money

6.2.2 Customer groups

Based on the online survey and the cultural probes, I identified distinguishing criteria for defining customer groups. A commonality of all respondents was as stated earlier fresh, organic and local food is appreciated and a desire for most of the customers. Another commonality is the wish to prepare healthier food. While these two commonalities do not account to all supermarket customers, they may be considered defining criteria for developing a new service.

In order to create customer groups in a systematic and useful way for the ideation phase, I discovered two distinguishing criteria among the respondents, that both can have two extremes at each end. The two criteria discovered are **shopping speed in supermarket context** and **level of guidance needed in food preparation**. For shopping speed the two extremes are:

I shop groceries as fast as I can and *I like to take time with grocery shopping and browse products*. The extremes for the second criteria are: *I need inspiration for what to cook* and *I usually know what to cook*.

The distinction into four groups should be considered rather an orientation than an given fact. It should be used as a tool for inspiration and help in organizing and differentiating ideas. There are many more customer groups and distinctive characteristics that could be used, but for the purpose of this thesis, the chosen criteria have proven to be helpful.

Placed on a matrix the two criteria can be combined to create four customer groups (see Figure 20 below)

CUSTOMER GROUPS

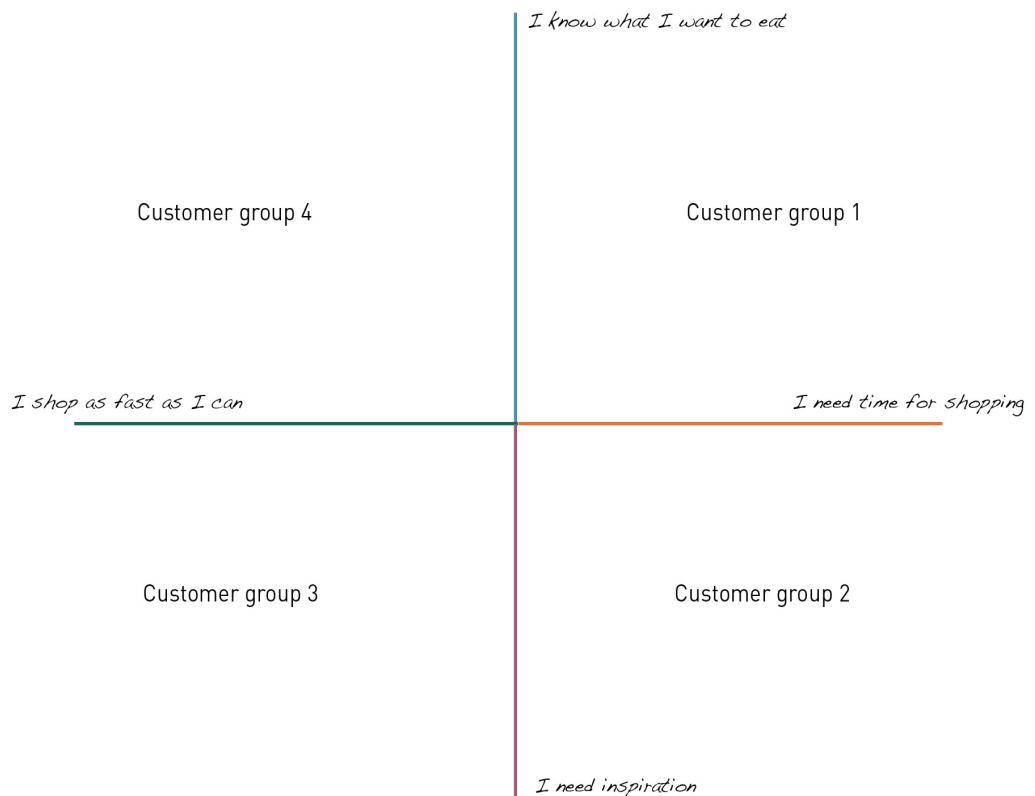


Figure 20: Customer groups

Customer Group 1: I know what I want to eat / I need time for shopping

This user group is a group of supermarket customers that usually know what they want to eat. Customers in this group like to spend time in the shop in order to discover new products and see what they could come up with. They can be regarded as the most creative among customers, as they value spending time on food discovery and preparation.

Customer Group 2: I need inspiration / I need time for shopping

This group of customer often lack ideas and inspiration for what to prepare to eat and therefore need a lot of time in the shop to get inspired and find the right products to eat. People of this group consume recipe magazines or browse online blogs or other sources in search of recipes and ideas.

Customer Group 3: I need inspiration / I shop as fast as I can

People of this user group need ideas and inspiration and when it comes to grocery shopping they are efficiency driven. They arrive to the supermarket with a list of groceries and go through the shop in search for just the ingredients they need and leave. However they also browse off- or online sources beforehand to get ideas about what to cook.

Customer Group 4: I know what I want to eat / I shop as fast as I can

This group of customers usually know what they want to eat and go through the supermarket as quick as possible. These customers have usually a fix set of easy to make foods in their mind and know which ingredients to buy. They seldom try out new dishes.

The four customer groups help in the ideation to think which ideas fit with which group of customers. The customer groups can also be used to evaluate the service ideas and test whether the ideas meet the customer group's needs. Last but not least the customer groups are a reminder to the designer that no one customer is alike the other. Every customer has different motivations, needs and emotions and the customer group distinction is one way to keep these differences in mind during the design process.

6.2.3 Design drivers

Based on the core user insights, I developed design drivers that help define the service experience. Design drivers are guiding principles for the designer to translate the user insights into tangible design solutions. During a design process the ideas, drafts and finally the design should always be evaluated against the design drivers to ensure the solutions developed meet the customer needs. According to Koivisto (2011) there should be a maximum of five design drivers in developing a concept.

Table 7 highlights the four design drivers developed for the concept based on the core insights: Inspire, Guide, Accelerate and Reward. The design drivers are formulated as verbs to emphasize that the service should be an agent of impact for its customers.

The design driver **Inspire** defines that a new service developed for the grocery trade should inspire people of healthy nutritious food. Inspiration can be a key driver in motivating people to live healthier and put time, money and effort into a healthy kitchen. Any activity designed within the service should have a focus on inspiring customers.

Core user insights	Design driver
Needing ideas and inspiration for meals to cook	Inspire
Needing help and information regarding nutrition and healthy products	Guide
Saving time	Accelerate
Finding motivation to cook Saving money	Reward

Table 7: Design drivers

Guide as a drivers points out that the service should take the responsibility to consult customers about health benefits and nutrition and help customers choose the right products for their personal context. For each activity planned into the service, guidance is a key to engaging people.

As many customers compromise the food preparation due to the lack of time, **Accelerate** is a design driver that should push the design of the service in a direction that makes grocery shopping and food preparation more efficient. Reducing redundant steps in a shopping process and helping customers to make quick decisions and purchases are examples of how the service can be an accelerator.

Finally **Reward** as a design driver should foster motivation among customers. If a customer gets rewarded for a health related activity, she is more likely to engage in related activities again. Reward can take the form of financial benefits or simple encouragement after a food preparation through the service provider or the community.

6.3 Ideation

In the ideation phase the collected insights help to spot new opportunities for services by finding synergies between the market, customer and business needs, or identifying new contexts of use.

6.3.1 Opportunity Brainstorm

Based on the customer insights collected, the market insights and the trend landscape, I conducted the brainstorm session together with a partner. Figure 21 below shows a part of the results as a visualized representation of opportunities. Customer needs were written on green sticky notes, the trends on red ones and the business insights on blue. The ideas generated were mapped based on the match with the insight or trend.



Figure 21: Results from brainstorm session

After the brainstorm session, I organized the ideas and mapped them onto the customer groups to see their fit with their profile (Figure 22). This was also a helpful exercise to see for which customer groups it is easy to ideate new ideas and for which more difficult. Mapping the ideas brought up some more ideas. It was also useful as I could identify whether several ideas could be combined into one service offering.



Figure 22: Highlevel ideas organized

The ideas generated are outlined below mapped onto the customer groups.

Ideas: I know what I want to eat / I need time for shopping

Inspire others & get rewarded: This idea relates to the fact that this customer group is very likely to be active contributors to the service in order to get rewards. As they spend a lot of time grocery shopping and are creative in preparing meals and trying out new recipes this group has also a high interest in suggesting new products to a shop and actively engage in bettering the shop selection.

Ideas: I need inspiration / I need time for shopping

This user group is most likely to engage with service interventions in the store. Thematic tours either virtual or real, stores arranged like a walk in recipe book or premium customer service were ideas to get this group engaged.

Ideas: I need inspiration / I shop as fast as I can

As this customer group does not enjoy spending time on grocery shopping, service ideas are about making grocery shopping more efficient and easy. Surprise box to be ordered home, meal of the day suggestions, online shopping, in store orientation and pick up meals were ideas for this group.

Ideas: I know what to eat / I shop as fast as I can

This customer group would benefit most out of ideas such as subscription or flatrate of certain products they always buy. Also online shopping, an enhanced shopping list planner, home delivery and useful statistics of purchased food were some of the ideas here.

Even though some of the ideas also work for other customer groups, they have been placed according their strongest fit with one user group.

6.3.2 Customer Value Constellation

After the opportunity brainstorm and mapping of the ideas to the customer groups I created a customer value constellation. There are countless opportunities for services when looking at the value constellation as suggested by Particio et al. (2011). When I applied the value constellation model to the context of grocery shopping and meal preparation, I identified that activities in this context can be represented in a cycle and not in a linear process as suggested by Patricio et al.'s (2011) model on grocery shopping. I based the value constellation model on the one suggested by Patricio et al. (2011) but simplified it by combining several of the activities and the missing activities of meal preparation and eating. Figure 23 illustrates the customer value constellation cycle.

The customer value constellation for the service concept in this report consists of five steps: Reflection, Planning, Shopping, Preparing and Eating. Reflection is the phase where the customer realizes the need to prepare food and reflects on what has been eaten already during the last days, what is the season, what is the mood, what is in the fridge. After the reflection phase, the customer begins to plan the meal. Searching for ideas or inspiration or making shopping lists are activities that happen in this phase. Shopping is the actual activity of going to the supermarket and purchasing products and carrying them home. The next step is Preparation, when the customer is actually preparing the meal, using recipes or other guidance as help. Eating finally describes the step in the cycle when the meal is eaten. After this phase the customer cycle starts again with reflection. Was the meal tasty? Is something left over for tomorrow?

CUSTOMER VALUE CONSTELLATION



Figure 23: Customer value constellation cycle for meal preparation

Once the customer value constellation cycle had been created, I mapped the design drivers to the cycle with the goal of seeing which drivers are most relevant in which phase of the cycle. Reflection and Planning are the steps in the constellation model where the customer needs most guidance and inspiration. Shopping and preparation are the steps where efficiency matters, but also guidance is needed in the shop or while preparing the meal. Finally shopping and eating are the phases where reward becomes most important. Customers should be rewarded for purchasing and preparing healthy food.

The customer value constellation is a first step in defining a holistic service concept that brings together customer needs and activities with the ideas and opportunities generated. This model helped to create a synthesis of the insights and ideation phase and through this a first draft of the service concept.

6.4 The service concept: Green key - The key to a healthier life

Based on the insights, the opportunities and the customer value constellation, I synthesized the input and created a service concept named Green Key, which will be described in detail in the following chapters.

The value proposition below describes the service in one sentence highlighting the key purpose and benefits:

Green key is a set of food-related and technology-enhanced services that inspire people to discover healthy meals, accelerate grocery shopping and preparation on busy days, guide people with choosing the right products for a balanced nutrition and reward them with bonuses such as discounts, home delivery and customer voting for favourite and new products.

6.4.1 Service World

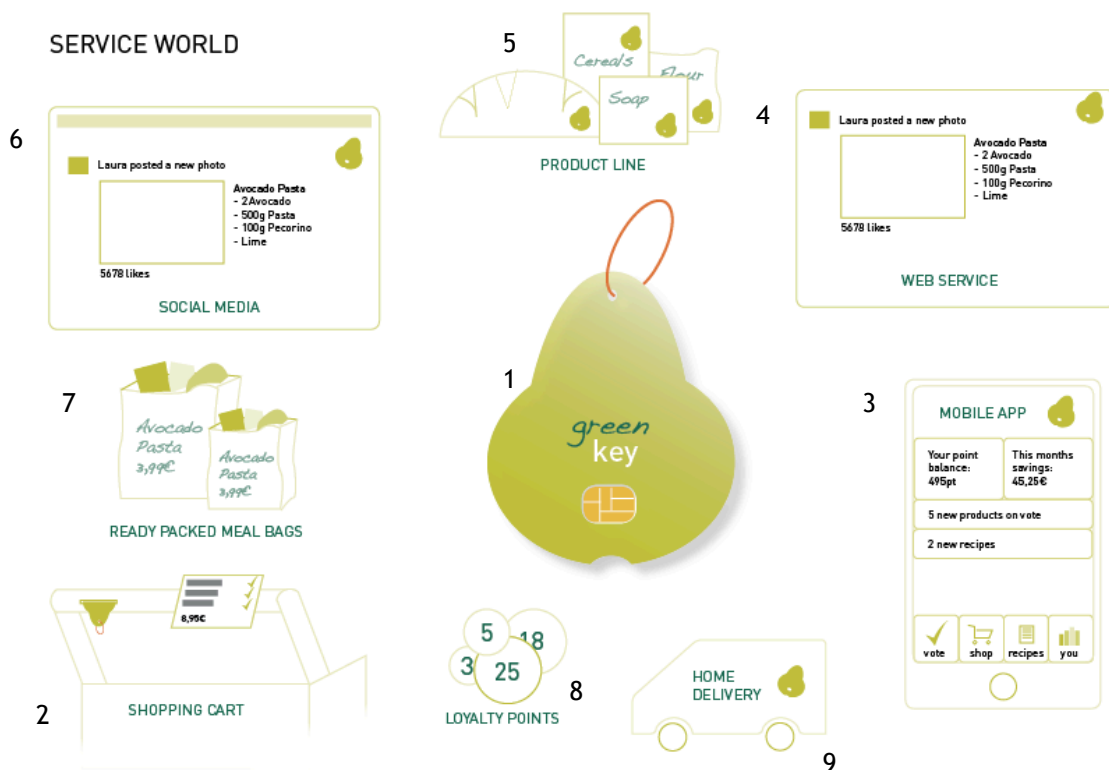


Figure 24: Service World

Figure 24 above introduces the Green Key service concept in a visualized format, which I call the Service World. In the centre of the image is the green key, the central piece of the service and recognizing element. The green key is the name of the service and the brandmark, but at the same time it is a token with a chip that let's the customer unlock and pick up a shopping cart and get identified in the supermarket. This identification works both for in-shop services as well as online services connected to the service concept. Additionally the green key is a label that stands for a special selection of organic products with the focus on a healthy nutrition.

The service concept is comprised of the following service touchpoints as visualized in the service poster:

- Green key chip (#1). The green key chip is technology-enhanced token that allows the customer to identify herself in the supermarket by plugging the key into the shopping cart or basket (#2). The chip can be attached to a key chain and carried along.
- The shopping cart (#2) has a touch display or can be used together with a smartphone. The display shows customer generated or supermarket provided shopping lists, store orientation, location of products, recipes and the items added to the shopping cart with nutritional information, alternative product recommendations and pricings.
- Mobile app (#3). The customer can install the green key app, which gives an overview over spendings and nutritional values, shopping lists, recommended recipes and savings. With the app the customer can order groceries easily online, apply earned discounts at check out or check out through mobile payment in the shop.
- Web service (#4). The web service has a more expanded functionality than the app. Grocery shopping planning and online order are the key uses cases for the web service. Additionally the customer can suggest new products to the shop or use votes to vote on which products should be on offer.
- Product Line (#5). The product line is a collection of products with strict product criteria according to organic principles. The product line carries the green key label to help customer recognize the products easily. The product criteria are described in detail in chapter 6.4.4.
- Social media channel (#6). The social media channel Facebook is used for the meal of the week campaign, where customers can vote recipes posted by other customers. With this people empowered campaign customers can choose ready packed meal bags for a special price to the supermarket.
- Meal bags (#7). The supermarket will offer a small range of ready packed meal bags with ingredients and a recipe that are easy to cook and of high nutritional value. The customer only picks up the bag, pays and can prepare the meal at home. The meal

chosen through the Facebook campaign will have a special offer price and feature the customer who has submitted the recipe.

- Loyalty points (#8). The customer receives loyalty points for her shoppings. The loyalty points are based on the nutritional value of the food bought. The healthier the food choice the more points are collected. The points can be used to order groceries online with home delivery, as a currency for product votings or as discount vouchers for the supermarket.
- Home delivery (#9). The home delivery is a service provided for loyal customers and a reward for a healthy lifestyle. Members of the service receive free of charge home delivery for a certain number of times during a membership period. Home delivery can be additionally paid with loyalty points.

6.4.2 Service Poster

Figure 25 (below) shows the Service Poster. The service poster communicates the biggest service benefits to the customer and gives a feeling of the brand. The green key brand conveys freshness, health and convenience. The simple graphics convey ease of use. The key benefits of the service for the customer are affordable, quick, inspiring, people powered and customer centric. The headline of the poster “subscribe to your own wellbeing” describes the business model and the customer benefit in one. In the centre of the poster the green key chip is placed as the biggest graphical element in the poster giving emphasis on its importance and recognizing element for all things related to the service. The Finnish slogan “ole hyvä ole terve” can have two meanings: Here you go, be healthy is one meaning, where “here you go” stresses the service delivery aspect and ease of use to the customer. The other meaning is “be good be healthy” which can be interpreted that by using the service the customer makes the right decision for herself and for the environment and the community.

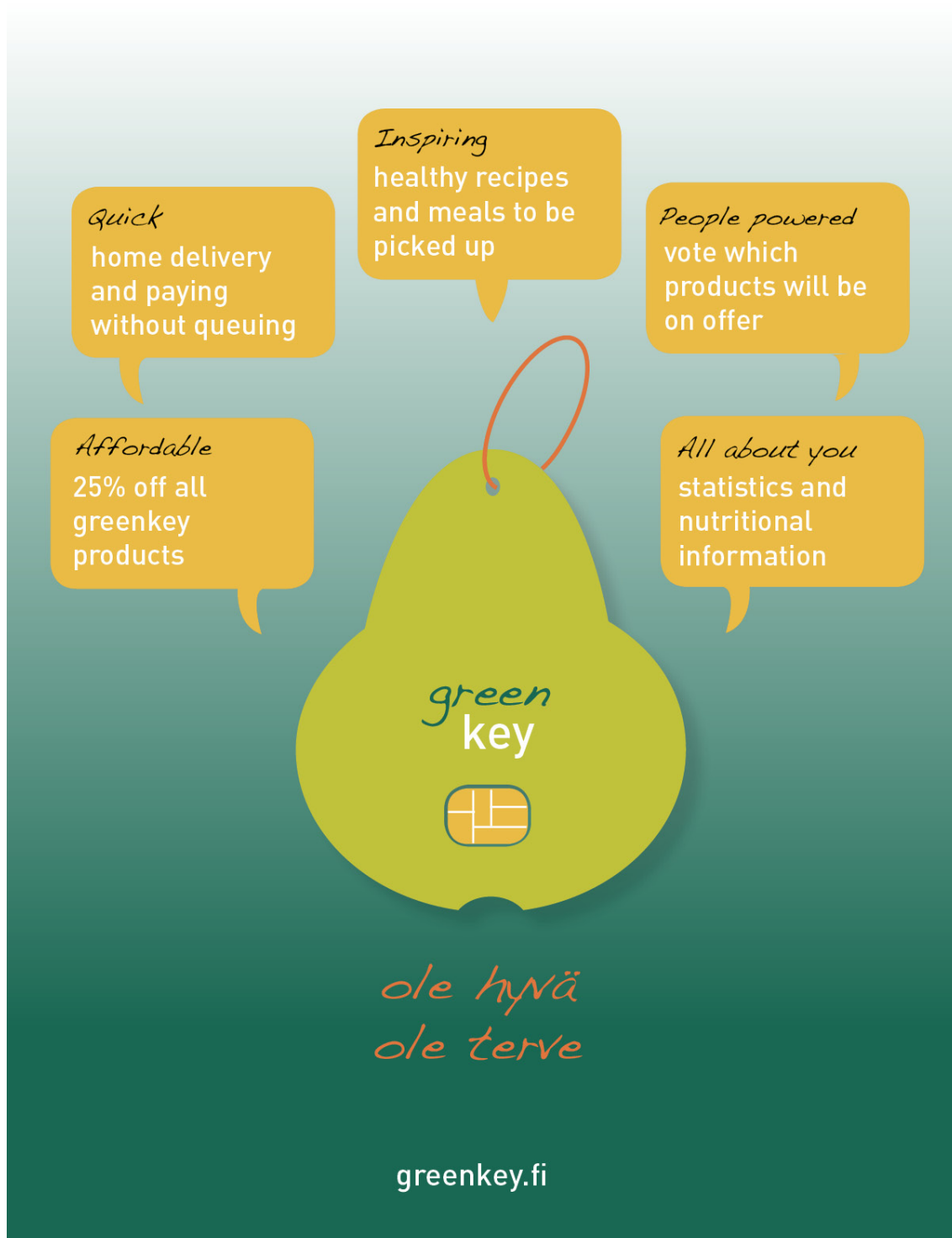


Figure 25: Service Poster

6.4.3 Service Canvas

As described in Chapter 5.3.3, the Service Canvas helps to bring both the business and the experience aspect of the service into one format. For better readability in the context of this thesis I will describe the Service Canvas content in text format instead of showing the filled out canvas sheet.

Financial model

The service will be a subscription-based model. This way the company has a steady inflow of subscription fees, with which the service can be maintained and offer and promotions can be financed. Customers will pay a monthly fee to get access to the added value services as well as discounted prices for local, organic and health promoting food carrying the green key label. The subscription model will help the company to monitor offer and demand of products as well as have a secured revenue stream to invest in new products or services. The financial model will also enable the company to keep prices of certain products low due to better controlling of the demand.

Value proposition

Green key is a set of food-related and technology-enhanced services that inspire people to discover healthy meals, accelerate grocery shopping and preparation on busy days, guide people with choosing the right products for a balanced nutrition and reward them with bonuses such as discounts, home delivery and customer votings for favourite and new products.

Service offer

The set of services encompasses the following services:

- 25% discount off all green key labelled products.
- Physical key to connect to the digitally enhanced shopping cart to enable personal identification for loyalty program, shopping list access, shop orientation and check out without queuing.
- Meal of week deal. Customer voting through social media channel of customer proposed meal. Winner meal will be available for reduced price as pick up bag with set of ingredients and recipe ready to cook in the stores or through home delivery.
- Favourite product voting. Customer voting where the amount of votes on a product lowers the price in the store. Customers can also suggest new products.
- Nutrition feedback and statistics on grocery shoppings.
- Loyalty program. Points are collected for each shop visit. Points can be used for discounts or home delivery. By collecting points, customers will reach status levels.

Status defines the amount of votes available per month to push for lowering favourite product prices or ordering of new products into the store selection.

Opportunity

Y-market (fictional name) as the forerunner supermarket in providing a set of services empowering customers to focus on a healthier life.

Service Innovation Strategy

Product Transformation Model and Experience Service Model. Product transformation model is a service innovation strategy that shifts the financial model away from the product to the service. Green key as a subscription service focuses on the additional services that build a value framework around the grocery products making them more relevant and contextual for customers through the service that is delivered. Even though the key income source for the supermarket will remain on goods sold, the subscription fee paid for the service will enable the business to focus more on customer service. The Experience Service Model describes an innovation strategy through which a product's value is expanded by adding services that meet a broader set of customer needs or introducing complementary service offerings. The green key service concept is a good example of applying this strategy by offering several services that answer the unmet customer needs identified in the insights phase.

Service Experience

The experience of the service should be effortless, easy and seamless. Effortless refers to the fact that the customer should not be bothered with many additional tasks while doing grocery shopping. As many customers shop in a hurry and saving time is one of the biggest customer needs, the experience should be as automated and supportive as possible and not distract the customer from the main activities such as grocery shopping and food preparation. Easy in the service experience means that the usage of the key and the digital channels as well as the check-out without queuing should be easy to understand and execute. Also the meals provided should be easy to prepare. Finally seamless describes the prerequisite that services across touchpoints should feel the same and that processes such identification, shopping lists and loyalty points should be accessible and interchangeable between all touchpoints.

Suppliers / Partners

With the focus on local, organic and fresh food the supermarket should become a platform for local suppliers to get their products sold. The voting services for new products could be an opportunity to offer local suppliers to offer their products through a well-known supermarket. For creating the new green key label, the supermarket should collaborate with health institutions or universities who have research and insights into the needs for a healthy

nutrition. Also the feedback and statistics system needs to be a collaboration between the supermarket and a trustful and independent supplier of nutritional information of products.

KEIs - Key Experience Indicators

The key experience indicators define what defines success for the business and how it can be measured. The definition of measurements is a complex strategic task, which would go beyond the scope of this thesis. The KEIs outlined here are an example of measurements that could be used.

KEI 1 is defined through the number of subscriptions or new sign ups: The number of active subscriptions and new sign ups gives information on how well the service is adopted in the market. It will also give feedback of the pricing of the subscription fee, whether it is too high or too low.

KEI 2 is the number of likes of the meal of the week campaigns: The number of likes on the meal of the week will give a clue about how well the service is adopted in the social network and how well it can reach customers interest.

KEI 3 is the NET Promoter Score, which describes the amount of people that recommend a service further. The new service should have at least 80% of new customers wanting to recommend the service to others.

KEI 4 is the number of downloads of the app. This number also gives a clue about the adoption and interest in the service. The rating of the app in the app stores also feeds back about the experience and usage of the service itself. However this number alone does not provide any feedback on active customers of the service.

6.4.4 Product Criteria

As the service concept involves a focus on healthy products and encompasses the idea of a new line of products, I created product label criteria to convey some of the prerequisites the product line should fulfil. Figure 26 below is an example collection of criteria for the green key labelled products. It is important that product criteria are established in order to offer the customer effortless guidance in choosing the right product for a healthy nutrition.



Figure 26: Product Criteria for Green key concept

Label criteria for a new product line would be among others the focus on wholemeal products for pasta, flour, rice or bread, the use of raw cane sugar or agave syrup instead of industry sugars in products such as fruit yogurt, lemonade or jam. Where possible the products should be fairtrade. Seasonal products should be favoured for offers and promotions to be in line with a sustainable use of the environment. Packaging of the products should be as minimal as possible and take advantage of recycled or degradable materials. Healthy niche products such as Quinoa or Amaranth, which are of high nutritional value should be promoted. Green key labelled products should be free of additives, artificial flavour or colours and preservatives.

6.4.5 Moodboard

Figure 27 below shows the moodboard for the green key service idea. Making a moodboard is a creative exercise. I used ideas and words from the insights collected to inspire my search for images. Respondents of the online survey mentioned supermarkets like Wholefoods or Alnatura, from whose websites I searched for images fitting to the context of the service concept. Additionally I did a google image search with words such as green, healthy, organic and browsed the image results.

I made a picture collage in Photoshop. The key as a leaflet and the pear fit with the feeling the green key concept should carry. The usage of green colour, the pear in the centre and healthy ingredients and meals illustrate the feeling the brand should convey.



Figure 27: Moodboard

The green colour conveys freshness, health and a positive mood. Grain, a prepared meal, the fruit selection highlight the focus of selection of the green key brand. The moodboard was used as input to create the service poster.

6.4.6 Customer journey

Figure 28 shows the customer journey for the shopping without queues scenario.

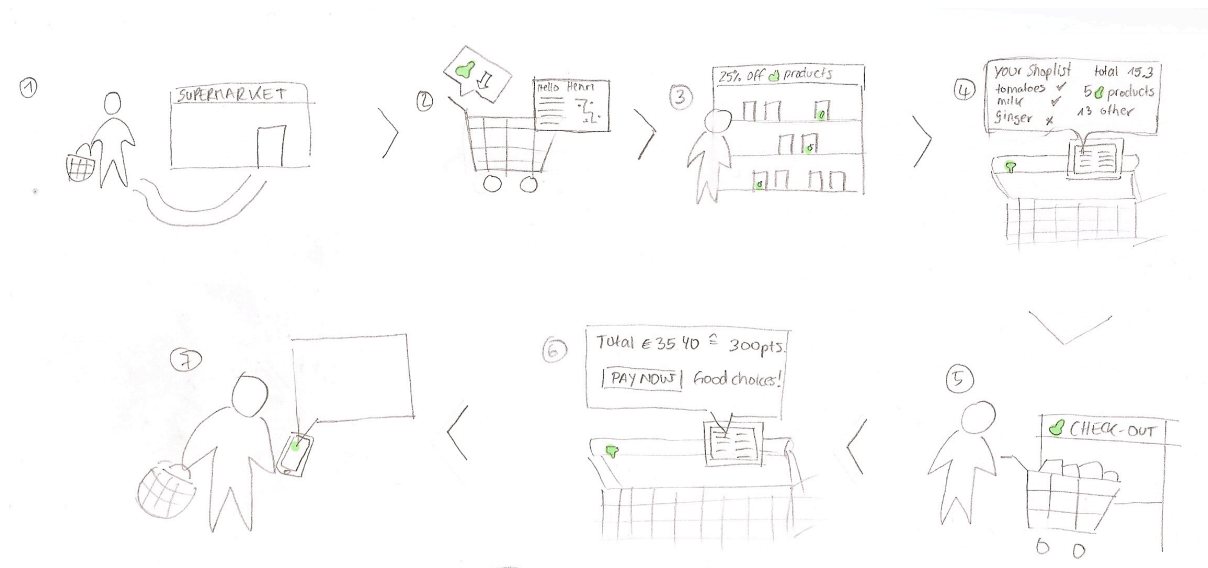


Figure 28: Customer Journey for shopping without queues

The customer enters the shop (1), goes to pick up a cart where he is asked to enter the green key (2). As a result he sees a shopping list and the location of the items he intends to purchase. At the shelf (3) he can easily recognize the green key label products and he is informed that these products will have a 25% discount with the green key. The display on the customer's shopping cart is updated while he adds new products to the cart (4) and he can see the total sum of shoppings as well as how many healthy products he has chosen. The customer goes to the gate with the check out label (5). Before passing the gate the display on the cart shows the total sum of groceries and is asked to pay (6). After the payment the customer passes the gate and receives a notification on his phone thanking him to have shopped, the amount of loyalty points collected and the feedback for the kinds of products purchased (7).

Figure 29 shows the customer journey for the discovery of the service



Figure 29: Customer Journey for discovery of the service

The customer enters the supermarket (1). In the shelf he realises the green labels on the products (2). At the cash he highlights the purchase of the green key label products and advertises the service to him (3). As he has shopped for more than 50€, he will get one month of testing of the service for free. The customer takes the key home (4). At home he reads the brochure introducing the service and its benefits (5). The customer goes to the service website and signs up (6). After sign up he is asked to install the application to his phone (7). The customer is now ready to use the new service.

Figure 30 shows the customer journey for the Meal of the Week.



Figure 30: Customer Journey for meal of the week

The customer receives a notification to his phone that a friend has posted a recipe on Facebook (1). The customer checks the Facebook Photo and reads that if he likes the recipe, the recipe might end up as a meal to cook in the stores next week (2). The recipe sounds interesting and the customer likes the recipe (3). A week later he goes to the store (4). In the store he finds the Meal of the Week shelf with packed bags of ingredients for an affordable price. He finds his friend's name and picture next to the bags and smiles (5). He picks up a bag and goes to the cash (6). At home he unpacks the bags, finds all ingredients and the recipe needed to cook the meal (7). Finally the customer sits happily at the table eating (8).

6.4.7 Service Blueprint

The service blueprint for the service concept has been created for the “Meal of the Week”-service. Figure 31 shows the blueprint. Instead of On Stage or Employee Actions I have used the title Service Actions as the service is digital and no employee interactions take place between the customer and an employee. While the customer journey above described the service from the perspective of the customer only, the blueprint gives a more detail step by step flow chart of all the activities involved in providing the service.

Service Blueprint

Green key - Meal of the week

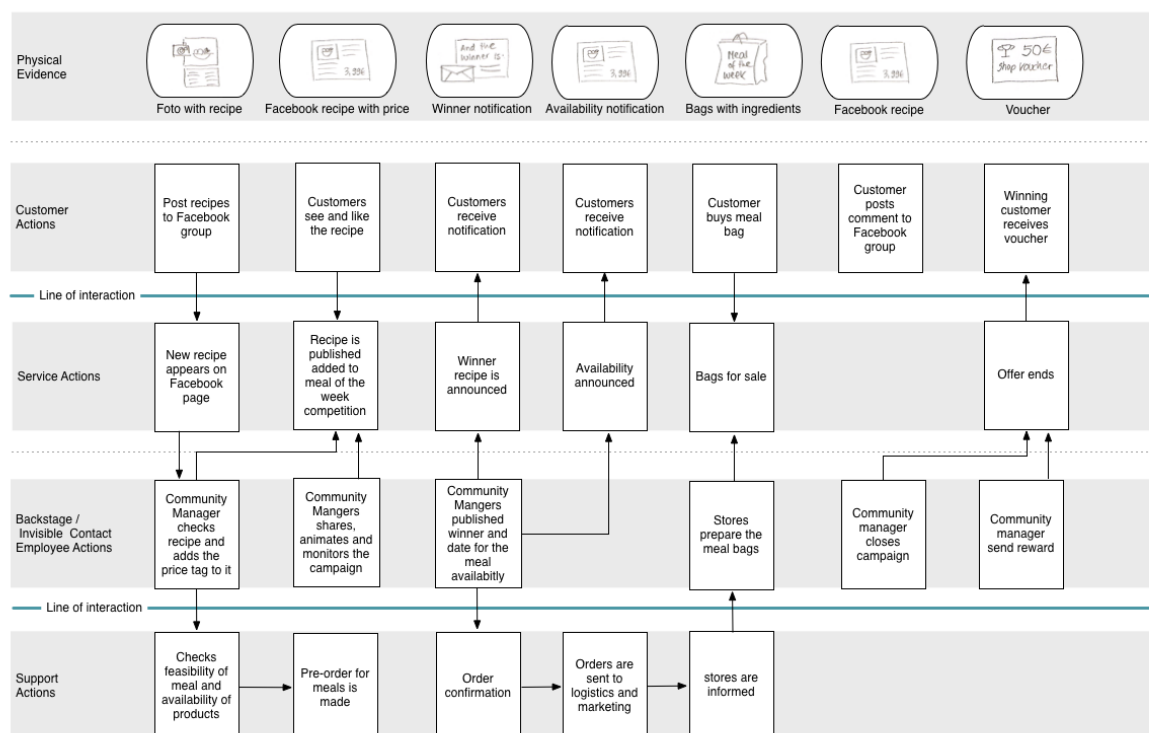


Figure 31: Service Blueprint for meal of the week

Creating the blueprint I realized that a dedicated person is needed to manage the service to run smoothly in the social network. This kind of job is usually done in companies by a community manager. The community manager is responsible of monitoring, sharing and updating relevant content within the social network. The community manager is also the interface between the community of customers and the service. The blueprint established helps to discuss the feasibility of a service concept and can be used as an instruction during the implementation of a new service process.

6.4.8 Core components influencing the supermarket experience

As a final deliverable for the service concept, I created a matrix to identify the core components that influence the supermarket experience. As the grocery store service offering is a complex and large service system, this matrix should help during the design phase to look at all the aspects of a service experience. The matrix can be used as a tool to guide the designer.

A service experience has both functional and emotional components with functional meaning orientation in the shop or the infrastructure used for paying systems. Emotional components describe how the mood of a customer can be affected through the use of interior design, lightning or music used. Additionally a service experience is also comprised of either tangible or intangible components. Tangible components are those that can be touched, such as shelves, door or even service staff. Intangible components are the customer service offered or mood of other people in the shop. I used these four criteria to create pairs based on the dichotomies of emotional/functional and tangible/intangible. Based on these pairs I established a matrix and mapped insights from the online survey below each pair.

Tangible & Functional <ul style="list-style-type: none"> - Shop layout - Shelf size - Efficient Cash, Check out - Product labelling - Variety of products 	Intangible & Functional <ul style="list-style-type: none"> - Online shop available - Home delivery - Child care - Opening hours - Distance to shop
Tangible & Emotional <ul style="list-style-type: none"> - Focus on fair trade and organic - Fresh food - Offers & Promotions - Interior Design 	Intangible & Emotional <ul style="list-style-type: none"> - Customer service - Queues - Number of people shopping - Value added services

Table 8: Core components influencing the supermarket experience

Table 8 shows the core components identified from the online survey. Tangible and functional components influencing the supermarket experience are the shop layout, the shelf size, efficiency of the check out, product labelling and the variety of products. Intangible but functional components are whether additional services are available that make shopping

easier such as an online offer, home delivery, child-care as well as the distance to the shop and the opening hours. Among the tangible and emotional components the freshness of the food and a focus on local, organic and fair trade products can be found. Also special offers and promotions as well as interior design affect the experience on an emotional level. Finally customer service, queues at the cash, the amount of people in the shop and the availability of value added services belong to the intangible and emotional components that can influence the experience of a supermarket offering.

6.5 Evaluating the transformative character of the service concept

As mentioned in Chapter 3.3 the eight ingredients for transformative services can be used not only in the design of transformative services but can also be used for the evaluation of service ideas and concepts. Table 9 shows the eight ingredients, how they have been applied in the service concept and the respective score for that ingredient. The score has the following values: 0 = not applied, 1 = minimum applied, 2 = partly applied, 3 = fully applied.

Ingredient	Application in service concept	Score
Connect to a community	The service concept connects to the existing customer community of the supermarket and uses a social media platform to engage and mobilize communities. However a certain community is not specified in too much detail.	2
Allow people to wear many hats	Customers in the service can be consumers, but they may participate as contributors actively by voting for new products and discounts and by submitting recipes for the meal of week.	3
Form new habits	New habits are formed by allowing people to change the way they shop groceries, prepare meals and guide customers with choosing a different range of products.	3
Establish Platforms	A new platform is not established in context of this service concept, but there are opportunities to do so, which may be investigated.	0
Empower the individual	Customers are empowered to live a healthier life through service activities such as nutritional feedback, meal of the week and the transparency of products and prices.	3
Embed services seamlessly	The service is embedded through the chip in an almost seamless way, spanning across a variety of touchpoints.	2
Enable responsible	Responsible actions are enabled through the focus of the product line and the green key concept as such.	3

actions		
Foster co-creation	Co-creation is happening with the customer votings and meal of the week campaign, but co-creation could still be emphasized even more.	1
Total points		17/24

Table 9: Eight ingredients as evaluation tool for service concepts

The total score for the service concept is 17 out of 24 available points. The ingredients of co-creation and establish platforms could not be identified. The remaining six ingredients can be found within the service concept in more or less extent, which make this service concept based on this evaluation a transformative service. After a potential testing of the idea with customers and stakeholders, the service concept can be improved and modified taking also into account the low scores in the two ingredients. The evaluation of the service concept against the eight ingredients showed how design principles can be used in the process of ideation and evaluation.

Conclusion

The purpose of this thesis was to develop a new service concept for the Finnish grocery trade that supports customers in the choice of healthier products and in the preparation of healthy nutritious meals. Based on insights collected from existing research, supermarket customers, trends and news sources, the need for health-promoting services in the grocery trade became evident.

In the theoretical part I created a basic understanding of the term Service Concept and how it is used in the design of new services. The service concept is a construct to communicate a service idea to stakeholders, employees and customers. Though the notions of the service concept diverge in the academic discussion, there are a few repeating elements a service concept should contain. Common to most discussions of the service concept were the need for the concept to convey the customer benefit and value, brand and mood of the service, the strategic intentions of the organization and operational tasks and activities. For the purpose of designing a service concept, the theoretical discussion remains somewhat abstract and therefore I related the key elements of the service concept to existent Service Design tools. I introduced Service Design as a discipline for designing new services and outlined the benefits of this creative approach for the innovation in services.

After creating a theoretical framework for the design of a service concept I looked at existing notions about the future of services and how value will be created. For the purpose of the discussion on value creation, I summarized the key concept of service dominant logic (SDL) by Vargo and Lusch (2004) and expanded it to the concept of customer dominant logic (CDL) by Voima et al. (2010). While in SDL value is always co-created between the provider and consumer through value-in-use, CDL suggests that value creation can happen outside the context of the provider interaction. Common to both logics is the importance of the customer as a creator of value and that products and services are void of value until used in context by the customer. With regards to the grocery trade this discussion pointed out, that the grocery trade needs to undergo a shift in thinking. In order to co-create value together with the customers, grocery providers need to offer services that can unlock the value potential for customers through service interactions and activities. For Voima et al. (2010) the key to value creation is the fulfilment of the customer's deeper psychological needs. For the grocery business this means to shift away from providing the customer just with groceries to providing services that enable customers to live a healthy and balanced life.

The idea behind the concept of transformative services corresponds to Voima's (2010) notion of value creation and is therefore an important aspect of the theoretical foundation for this thesis. Based on literature reviewed, transformative services will become a key differentiator

for service firms in the future. Transformative services will create value through fostering wellbeing among its customers by enabling behaviour changing service interactions. Kotler et al.'s (2010) concept of Marketing 3.0 describes the need to deliver socio-cultural transformations for service businesses to survive in an oversaturated market. I briefly summarized Sangiorgi's (2010) framework for transformative services to create an understanding how transformative services impact both on the customer and the organizational side. Finally I proposed eight ingredients for transformative services that help in the design of new service offerings. These eight ingredients can be used both as inspiration and guidance in service design projects and as a tool for evaluation for existing services or new service ideas.

A third important theoretical aspect for the context of this thesis was to create an understanding of the implications of the grocery trade and its customers for the design of new services. I first reviewed existing literature about consumer behaviour in the grocery trade. Research suggests that for the purpose of grocery trade services customer segmentation is not a straightforward task and traditional segmentation methods based on gender and demographics may be obsolete. In line with Voima's (2010) view about putting values and needs of the customer at the centre, segmentation should be done based on values customers share. A challenge in understanding consumers in the context of grocery shopping is according to the reviewed literature the complexity of the activity of grocery shopping.

Next I looked at mechanisms and aspects that have an influence on consumer behaviour in the context of grocery trade and a healthy diet. Research suggests that programs such as simulation games or in store interventions can have a positive impact on people's knowledge and consumption behaviour with regards to groceries. There is also surprising evidence that situational factors such as store location and availability of organic or healthy food within certain neighbourhoods has a bigger impact on the consumption patterns of grocery store customers than socio-economic factors like income or social status.

The assessed research has shown that there are ways to influence customer's behaviour towards a healthier and more sustainable consumption and that opportunities for new service offerings lie especially within grocery store reach to a variety of different customers by providing health promoting products and services to them.

Finally the trends analysed in section 4.3. gave important clues of driving forces within the market of grocery trade as well as among consumers. Customers of grocery shops demand transparency of product life cycles and the availability of organic and local food. There are however consumers to who price will always be king. For the grocery business the trends forecast a big shift in how grocery stores operate based on the influence of digital

technologies and the use of the social web. Online grocery shopping, people powered offers and discounts and mobile check out are examples of how grocery shopping is predicted to be transformed in the future.

The approach that has been taken to develop a service concept is anchored in the discipline of service design. Service design as a multidisciplinary field of practice to develop new and innovative service offerings lends and adopts methods from a variety of fields such as User Experience Design, Marketing or Business Modelling. Key to a service design approach is the gathering of customer insights and the use of creative and customer centred methods to develop ideas and service concepts. The service design process used to develop a service concept for the purpose of this thesis consisted of three phases: insights, ideation and concept.

An online survey, cultural probes, desk research, trends and expert interview were conducted to gather as holistic set of insights as possible. The insights revealed that there is a big customer group that values fresh, organic and local food and that this group is dissatisfied with the current supermarket offerings in Finland. The gap between the customer's service in mind and the services actually provided seems to be big and offers countless possibilities for new service opportunities. Customers do want to live healthier and even though they lack the time to prepare sophisticated meals during weekdays, they long for solutions to support a healthy lifestyle. Apart from the core insights, the data collected was used to form customer groups and designer drivers as well as core components influencing the supermarket experience. These deliverables were used as input for the ideation and concept phase.

The service concept was developed using the insights generated in an ideation brainstorm. The insights and ideas were then applied to a customer value constellation model. The customer value constellation model helped to combine the developed service ideas into one concept making the services relevant to the customer also outside the traditional service interaction.

The concept, that was developed is called Green key and describes a set of services that promote a healthy lifestyle by helping supermarket customers to choose health promoting products, prepare easy to cook meals and give nutritional information and feedback. The subscription-based service is enabled through a small chip, the green key, which can be used to connect to a shopping cart or basket to identify as a customer in the shop. Through a mounted display on the shopping cart, the chip enables contextual and personalized information about grocery locations, recipes, shopping lists and items purchased. Nutritional values can be retrieved in an instance. Check-out without queuing and healthy pick up meals to be cooked enable the customer to be quicker with grocery shopping and spend the time

rather for preparing food. Customers with a subscription receive discounts and loyalty points which can be used for home delivery service or voting for discounts. A product line with a green key label that features products which are salt reduced, environmentally friendly packed, organic and sugar reduced represent another key element of the service offering. Finally the social web offers customers to actively participate in the grocery store offering through voting for discounts and new products as well as through the contribution of recipes to a weekly meal bag competition.

The service concept shows a variety of service opportunities for the Finnish grocery trade that can both create value for customer as well as the service provider. The service opportunities presented have a strong link with the trends outlined in the theoretical part of the thesis and translate the concept of transformation through services into a tangible service concept. The eight ingredients of transformative services have been used to evaluate the service concept. Open remains however the task of testing and evaluating the service concept with real customers and possibly also stakeholders. This crucial task in service design projects, which could not be part of this thesis, could reveal important aspects, improvements and further ideas.

The thesis contributes to the academic discussion with three new perspectives. First, it presented a model to concretise the service concept with service design tools and therefore established a new discussion on how the theory of the service concept can relate to service design practice. However only a few tools have been presented here and therefore remains a need of deepening this discussion in future research. Second, the thesis added to the still very limited discussion of transformative services. The eight ingredients of transformative services are just a first step in developing a model to help in the design of transformative services and the concept developed showcases an example of possible services in the private sector that can deliver transformations. More research is needed to investigate the conditions and business opportunities for the private sector to offer transformative services and feedback from customer is needed to verify transformations are actually happening. Last but not least, this thesis contributes to a discussion at the intersection of the food industry and service design, showcasing the need for the grocery industry to shift towards a service or customer dominant logic. The service concept shall propose a base for discussion on how the grocery trade can innovate and respond to customer needs and the challenges the future will bring.

The Finnish food industry is currently driven by product innovations but this research shows that service innovation can be a key differentiator and driver for competitiveness in the future. Through the use of digital technologies and the power of the crowd in social media

channels, customers can be engaged and motivated to prepare healthy meals. The business will profit from increased loyalty and grocery spendings.

Finally the theoretical discussion and the service concept developed bring to one's attention that there might be a strong link between dynamics in digital technologies and the power of transformation. Online activities such as crowdsourcing and social media campaigns have shown how people can be empowered and motivated to achieve or change things. Seamless technologies, sensors and mobile apps allow customers to collaborate, contribute, plan or execute activities on the go. As a next step in the discussion future research should investigate this link between the digital world and transformative services. With this outlook I want to conclude this report.

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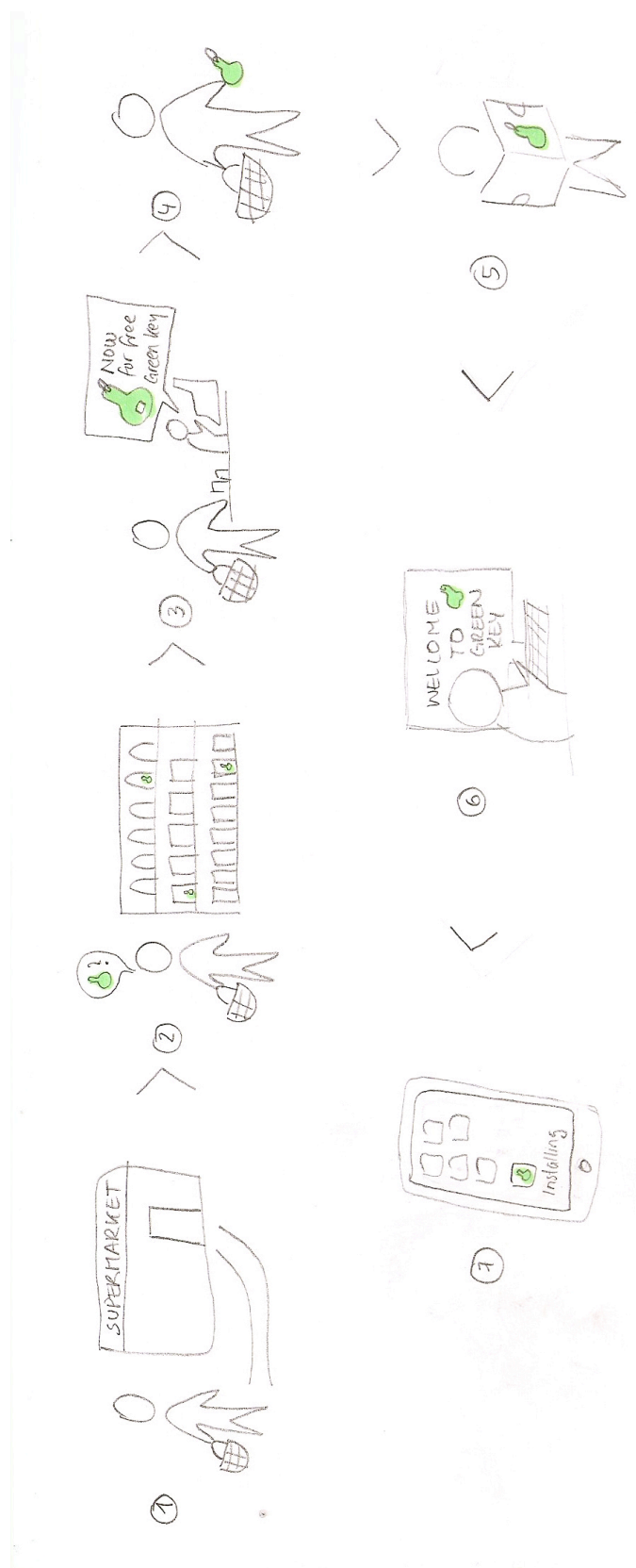
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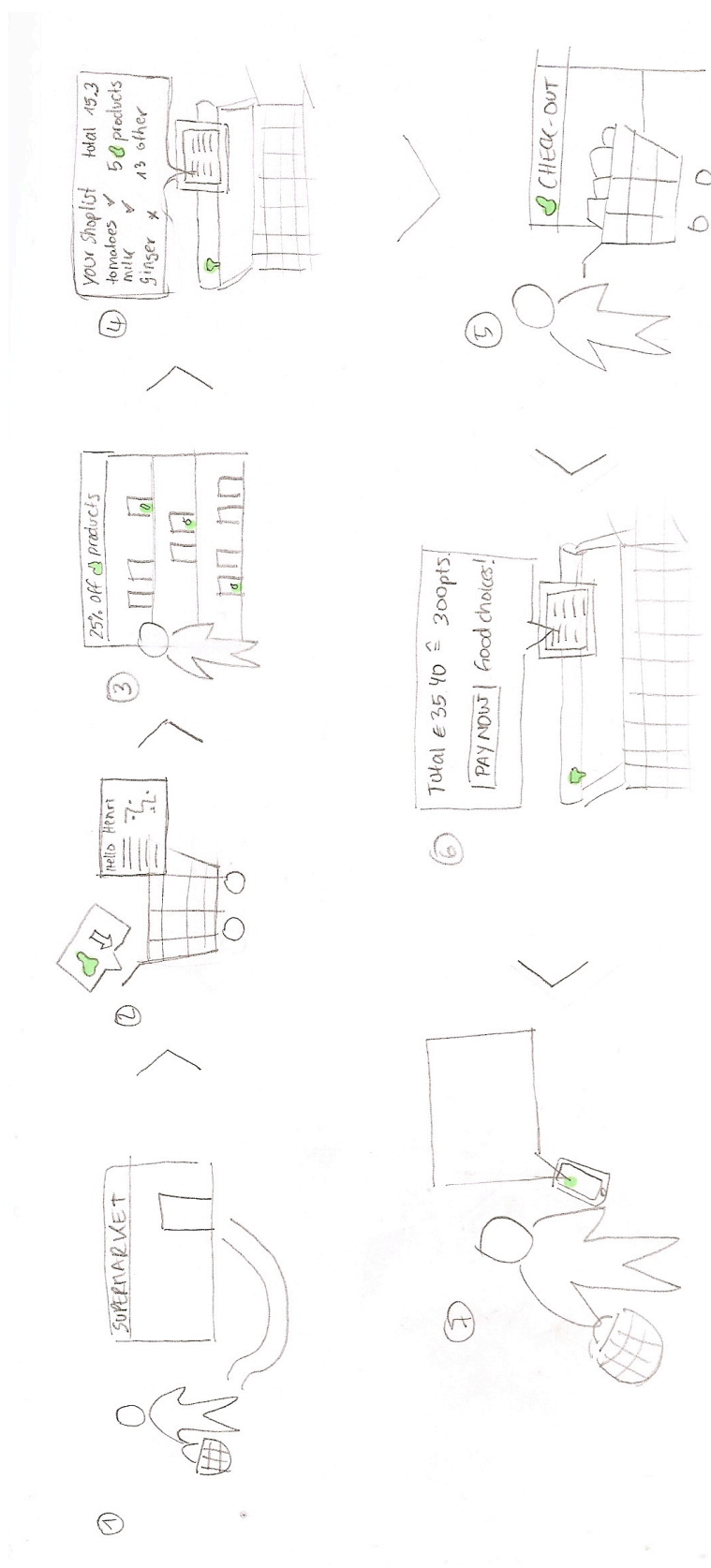
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Appendix





Service Blueprint

Green key - Meal of the week

